EDUCATIONAL INEQUALITY ON ACCESS TO PHYSICAL RESOURCES AT HIGHVELD RIDGE EAST CIRCUIT: MPUMALANGA

by

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I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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ABSTRACT

The phenomenon of educational inequality on access to physical resources in the Highveld Ridge East Circuit of Mpumalanga was investigated in the study. Since the COVID-19 worldwide pandemic had affected education on a global scale, South Africa included, it became necessary to incorporate this new development into the emerging design that unfolded. The study explored the impact of access to physical resources in three public schools. The aim of the investigation was to ascertain how educational disparities on access to physical resources manifested at the chosen research sites, especially during the COVID-19 pandemic.

A qualitative research approach was utilised comprising of a multiple case study design. The study reported how the principal and deputy principals viewed educational inequality on access to physical resources from a management perspective, while educators provided insight on the effect of this phenomenon on the teaching and learning process. Observations, individual interviews involving the principal and deputy principals as participants, and focus group interviews involving the teachers, as well as the scrutiny of relevant official documents provided the empirical data for this investigation. All research participants were purposively selected, as a full staff complement was unavailable at the research sites during the pandemic.

The results that emerged from the study indicated that educational inequality was prevalent in these public schools. The dearth of resources, and in some instances basic essential resources, had a marked impact on the management as well as the teachers and students at these schools. A significant point to consider was how ill-equipped the public schools in this area were to deal with education during a global pandemic. The backlog of the inequities on access to physical resources needed to be addressed as a matter of dire urgency if the country had any hope of salvaging the education process even at the most basic level. The recommendations in the conclusion of the study are desperate pleas for help in assisting the country, especially the previously marginalised, to move forward in the worst of times.

KEY TERMS: educational, inequality, access, physical, resources, circuit, COVID-19, global, pandemic, ill-equipped

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LIST OF ABBREVIATIONS

CAT	:	Computer Applications Technology
CDC	:	Centre for Disease Control
COVID-19	:	Coronavirus disease 2019
DBE	:	Department of Basic Education
DG	:	Director General
ECD	:	Early Childhood Development
EQUIP	:	Education Quality Improvement Partnership Programme
GCSE	:	General Certificate of Secondary Education
GPA	:	Grade Point Average
IT	:	Information Technology
JET	:	Joint Education Trust
KSA	:	Kingdom of Saudi Arabia
LCS	:	Living Conditions Survey
MDGs	:	Millennial Development Goals
MEC	:	Member of the Executive Council
MLA	:	Measuring Learning Achievement
MTSA	:	Mathematics & Science Technology Academy
MTSF	:	Medium Term Strategic Framework
NDoE	:	National Department of Education
NDP	:	National Development Plan
NNSSF	:	National Norms and Standards for School Funding
NSC	:	National Senior Certificate
PPE	:	Personal Protective Equipment

SADTU	:	South African Democratic Teachers Union
SES	:	Socio-economic status
SGB	:	School Governing Body
SMT	:	School Management Team
SOAR	:	Simply Open and Read
TVET	:	Technical Vocational Education Training
UNESCO Organisation	:	United Nations Educational, Scientific and Cultural
USA	:	United States of America
VET	:	Vocational Education Training
WFP	:	World Food Programme
WHO	:	World Health Organisation

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CHAPTER ONE: OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND

It has been 24 years since South Africans went to the polls in droves in a landmark show of solidarity to vote for its first ever democratic elections. The optimistic masses guilelessly anticipated that basic national privileges, their birth right denied them for centuries, would materialise in the form of much needed quality education which would help to improve the living conditions of most of the country's citizens. However, despite political promises of a brighter future for all, education is one area that appears to be deficient. The scourge of deeply entrenched inequalities reminiscent of the country's dark history continues to rear its ugly head.

Hartley and Omarjee (2008 cited in Sayed, Kanjee & Nkomo, 2013:112) report on an update to Parliament made by the then Minister of Education Naledi Pandor about the status of simple service provision in the 26 000 schools in the country, related to the issues of race, class and social location. They stated, "1097 schools did not have sanitation facilities; 2568 schools did not have water facilities; 3759 schools were without electricity; 7418 schools did not have science laboratories and 4080 schools did not have sports facilities." Access to physical resources was one of the pressing issues in education then, but what is the current situation?

Enshrined in Section 9 of the Constitution of South Africa is the equality principle. Equality within the educational milieu means that no child is denied the opportunity to attend any school that provides an atmosphere that is safe and cherishing. Prejudice of any kind is unacceptable (Nieuwenhuis 2007:211). Denial of access to much needed resources would therefore contravene this important principle. According to Osman (2015), many children are compelled to remain in schools that are typified by many tribulations among others, a dismal scarcity of plain essential teaching and learning resources, which further widens the equality gap. In South Africa, there are a large number of schools that differ significantly in the type and quality of education that they provide. A closer look at the schools in the Highveld Ridge East Circuit of Mpumalanga will reveal how these differences manifest, in terms of access to physical resources.

1.2 RATIONALE FOR THE STUDY

Policy makers and education planners need to take cognisance of the state of education in South Africa. One would have expected the educational situation to have improved since the new government came into power post-1994 but things appear to be worsening. What is also apparent is that educational disparities continue to exist, and this cannot constantly be swept under the proverbial carpet.

Some of the government's efforts would seem to have been to no avail. Makhwanya (2015) indicates that one of the means in which the regime after apartheid attempted to bring balance to educational structures, was through the introduction of a non-paying school policy. The goal of this novel reduction was to make tutoring simply reachable to all pupils around the whole nation, mainly the extremely impoverished and the parentless. However, this has given rise to throngs flocking into schools resulting in resources coming under pressure. Congestion became the norm rather than the exception, thereby compromising the quality of education offered.

An investigation into how inequality in education continues to manifest in South African schools needs to be undertaken and if these appear to be rooted in our historical, institutionalised system of segregation, then the time has come to start addressing these issues head on if the country has any hope of moving forward economically as well as being in a position to provide an education that is worthy of competing with those of more affluent nations. There appears to be just a few studies conducted on the issue of inequality in South African schools but none in the area of Mpumalanga; hence, the researcher hopes to supplement existing literature with this body of knowledge by focusing specifically on the issue in a sub-section of this province. The researcher is of the opinion that this updated view on the type and quality of education within the country's schools, as well as the identification of educational dissimilarities, can aid in shedding light on the matter.

1.3 LITERATURE / SCHOLARSHIP REVIEW

The South African education system has at its roots, prior to 1994, deeply entrenched divisive and disproportionate characteristics that were enforced via a carefully orchestrated scheme of institutionalised racism. Almost two and half decades later,

what has changed within the education system to ensure that equity has been restored? According to Osman (2015), if one were to measure a schooling structure's dominion merely on admittance, then South Africa absolutely would be an educational triumph. Since the end of apartheid in 1994, there had been a momentous increase of pupils enrolling at both primary and secondary schools. There had also been an increase in university registrations too. Government guidelines were put in place to vehemently disperse old trends of school admittance, which were a distinguishing part of the former powers. It had also given priority to the professional development of teachers and was attempting to engender rules and principles for school facilities. Despite all of these notable advancements in the area of education, however, there still appeared to be an obvious disconnect simply because these advances did not mirror the degree and eminence of learning taking place.

An investigation into the issue of educational quality reinforces the afore-mentioned viewpoint. The 2001 national Grade 3 universal appraisal revealed that the average grade for Mathematics for the nation was 30% and literateness 54%, according to Gilmour and Soudien (2009:282 as cited in Sayed, Kanjee & Nkomo, and 2013:112). Furthermore, according to Soudien (2006:15 as cited in Sayed, Kanjee & Nkomo, and 2013:113) Grade 6 trials effected in the Western Cape in 2003 denoted that in the mathematical quiz, there was a success rate of about 16% and a median of 28%, and for literateness, a median of 36.8% was attained while only 35% of pupils got through. The ethnic classification of these outcomes was as follows: 63.6% of White pupils achieved at the requisite Grade 6 level for Mathematics, 4.1% of Coloured pupils succeeded at the necessary level and 0.1% of African students triumphed at the obligatory grade. The disparities in the results are obvious and blatantly glaring.

What exactly seems to be at the heart of the problem? Before this question can be addressed, it becomes incumbent to place this situation within a global context. One needs to take a broader view of education within the South African context in respect of educational inequality to ascertain whether this situation is unique to South Africa or if it is part of a larger global phenomenon.

1.3.1 A global perspective of educational inequality: Transcending borders

1.3.1.1 Widening the gap: Unequal distribution of resources for K-12 Science instruction

In a study undertaken in the state of Arizona in the United States of America (USA), Smith, Trygstad and Banilower (2016) focused on how resources for the teaching of science were allocated to classes that were segregated according to the teachers' perceptions of their prior academic level. They highlighted three major areas (resources), namely the teachers' proficiency, the instructional materials and the learning process itself. For teacher quality, Smith, Trygstad and Banilower (2016) arrived at the conclusion that under-performing students were less likely to have educators who were confident about the Science content to be disseminated, competent in encouraging student participation in the subject, able to implement differentiated education and carry out Science instruction as a prescribed unit. These teachers also lacked any recent professional development in the subject.

In respect of access to physical learning supplies and equipment like microscopes, calculators and probes, Smith, Trygstad and Banilower's (2016) findings revealed that classes of mostly high-achieving students were more likely than those under-performing, to have access to these essential Science resources. The under-achieving groups had fewer of even the least advanced gadgets like non-graphing calculators. The researchers believed that this inequity called into question the standard of learning taking place within these classes. Lastly, the researchers took into consideration how Science instruction itself was disseminated in the classrooms. They discovered that even in this area students had varying degrees of access. The findings indicated that the under-achieving groups were less likely to participate in and experience hands-on laboratory activities that would have significantly enhanced the understanding of vital concepts, key to understanding the Science content (Smith, Trygstad & Banilower, 2016).

1.3.1.2 Student drop out in upper secondary education in Norway

Norway is perceived as a stronghold of welfare and an advocate of a classless community, however, the divide in retention levels between various groups of learners discloses masked disparities in the Norwegian schooling structure (Halvorsrud, 2017). The drop out challenge in the senior phase of schooling in Norway could be traced to its roots in history. Free and equal admittance to inclusive education had long been a priority in the Norwegian educational sector. With Reform 94 of 1994, any child who had completed the mandatory education phases, was now entitled to an upper secondary education. This reform led to almost 98% of students who had completed compulsory schooling enrolling for upper secondary education (Halvorsrud, 2017). However, the question that arose was, why is the drop-out rate exorbitantly high?

Statistics have revealed that students that chose the vocational education training (VET) path instead of the general studies path quit the system in elevated numbers. It was discovered that students who chose to pursue the VET option, had parents who had a lower level of education. This was where educational disparities were most apparent as these students' grade point average (GPA) was directly affected by the student's social background or socio-economic status (SES). When the schooling structure supports middle-class standards, more working than middle-class scholars are likely to drop out (Halvorsrud, 2017). Another factor that had significantly influenced the high drop-out rate in Norway, was the fact that the ruling White ethnic group was used as a yardstick to ascertain educational "success," whilst first generation migrants from non-western backgrounds struggled to cope and fit into a system that was ill equipped to deal with their diverse needs (Halvorsrud, 2017).

1.3.1.3 Poverty and development in Nigeria

Omideyi (2008) explored whether poverty and development in Nigeria were any closer to meeting the Millennial Development Goals (MDGs) which were projected for Sub-Saharan Africa. The rationale behind these goals was that poverty elimination was key

to improving the lives of the majority of Africans especially those in Nigeria. Discrepancies were uncovered in the educational field, which made the attainment of set goals all the more difficult to achieve. Despite education and manpower instruction programmes being somewhat efficacious in assisting in the elimination of organisational obstacles to better employment opportunities, some apparent breakdowns continued to subsist: where the significance of schooling was recognised, monetary allocations per learner in disenfranchised regions was markedly less than that which was expended on more affluent learners, teachers lacked the necessary proficiency and requisite skills, books were frequently outdated or in scarce quantities, there was a dearth of facilities, and the culture of knowledge acquisition was questionable (Omideyi: 2008).

In a nutshell, according to Chubb and Moe (1996) as cited in (Omideyi: 2008), “this systemic failure of the schools is thus thought to be the reason poor people have low achievement, poor rates of graduation, and few pursue higher education.”

1.3.2 Educational inequality within the South African context

1.3.2.1 Teachers in rural schools – A challenge for South Africa

There is no doubt that as a native South African one is aware that marked disparities are prevalent in the various schools in the country. These inequalities, however, were significantly more apparent in rural schools as compared to their urban counterparts. Du Plessis and Mestry (2019) revealed the dismal state of schooling in the country’s rural areas. Schools in the rural areas were not governed properly simply because the parents in these communities lacked the necessary knowledge and skills to assist in running these schools after schools were decentralised. In addition to this, because of the remoteness of these institutes of learning, the amenities were underdeveloped: many schools experienced a dearth of essential physical supplies, fundamental infrastructure for sanitation, water, roads, transport, electricity, and information and communication technology. The low socio-economic status (SES) of these rural parents who were largely employed in menial labour, also had an effect on the quality of learning as they could not afford to provide their children with essential items such as school stationery and cleaning supplies (Du Plessis & Mestry, 2019).

Staff turnover was also high in the rural areas as teachers were dissatisfied with their working environments, lack of support from authorities and the lack of career advancement opportunities in these scenarios. To compound the other major problems, teachers in rural areas were most frequently subjected to multi-grade instruction, where they had to teach different subjects and different grades in one class. As a result of the mammoth planning involved, if one were to do it right, teachers often deviated from syllabi in order to manage the situation to the best of their ability. It did not help matters that they were very seldom monitored in the classroom due to the fact that education officials almost never made it to the outlying areas. The direct consequence of such an unnatural educational situation was a compromise on the quality of education these learners were receiving (Du Plessis & Mestry, 2019).

1.3.2.2 Perceptions of disadvantaged rural matriculants regarding factors facilitating and constraining their transition to tertiary education

A study undertaken by Maila and Ross (2018) revealed that Black South African matriculants in a rural area in Mpumalanga were hindered from pursuing a lucrative and fulfilling post-school education by various factors. One of the factors uncovered pertained to the inadequate or dearth of resources at their places of learning. The results of Maila and Ross' (2018) research highlighted that the students reported on were from pedagogically underprivileged schools. In spite of the majority of learners being exposed to consistent instruction, to a significant group of students this basic critical provision was non-existent. Furthermore, a sizeable number of learners did not have access to libraries, computer laboratories, extra-curricular amenities, and vocational guidance. Maila and Ross (2018) cited Nyuswa's (2003) report which brought to the fore the scarcity of resources at schools, as well as expostulating the minimal support from the education department in redressing the plight of non-urban (under-resourced) institutes of learning in respect of increasing their scope of supplies.

Furthermore, Maila and Ross (2018) reported that several schools in the study did not even have elementary furnishings, a school library, and even recreational amenities. The Department of Education had failed to provide many of the schools sampled with adequate supplies of learning and teaching resources. They referred to Nyuswa (2003) who brought attention to the fact that the deficiency of vital infrastructure,

especially flush lavatories, libraries, laboratories, books, writing supplies, overhead projectors, and computers needed to be attended to as a matter of urgent priority. Maila and Ross (2018) agreed that the scarcity of these educationally edifying indispensable learning materials could predictably hinder these deprived students from accomplishing their ultimate educational capability and securing laudable matric results.

Maila and Ross' (2018) study uncovered how ill-equipped the matriculants sampled in these rural schools felt, about transitioning to tertiary education which required essential prerequisites like computer skills, hands-on scientific knowledge, how to conduct basic research, as well as essential knowledge pertaining to different careers and the job market. This study emphasised the importance of having access to essential teaching and learning materials as well as other necessary indispensable facilities necessary to produce matriculants who were capable of changing over to post-school education.

1.3.2.3 The implications of the National Norms and Standards for School Funding (NNSSF) policy on equity in South African public schools

In a study undertaken by Mestry and Ndhlovu (2014), one of the factors that was investigated was access to educational resources. The findings revealed that despite substantial government interventions in the education system, equity had not been fully realised. According to Mestry and Ndhlovu (2014), in Section 34 of the South African Schools Act, the government was obligated to provide essential financial aid to public schools from public revenue on an equal footing and in so doing guarantee that the rights of learners to education was not infringed upon. In this way, the unfair inequitable distribution of resources would be remedied. It was for this very reason that the government introduced the National Norms and Standards for School Funding (NNSSF). Places of learning that served the underprivileged should be allocated a larger portion of state funds than schools in well-off areas.

The study conducted by Mestry and Ndhlovu (2014) uncovered that in spite of the government increasing state financial assistance exponentially for previously

disadvantaged schools, the quality of education meted out was undesirable and subsequently, improvement in learner gains had not materialised. The teachers sampled in the study, especially in the poor schools, indicated that the physical resources supplied were insufficient. They also complained about difficulties they encountered when trying to gain access to or share these resources, which directly affected their ability to deliver quality teaching. Another burning issue was the procurement of resources. This mammoth task was left to the School Management Team (SMT) or teachers at the school, who lacked the essential skills to carry out this task efficiently and successfully. Furthermore, the School Governing Body (SGB) members in most cases were unable to assist and monitor the situation as they themselves lacked vital financial management skills.

Mestry and Ndhlovu (2014) concluded that despite government's gallant efforts through the NNSSF rescuing needy schools to redress the inequities of the past, it would appear that more financial aid for previously marginalised sections of the community was not enough. Other challenges hindered the government's vision of providing superior quality education to all of its people. Furthermore, there was no doubt that "no-fee" schools had advantages too, but it would appear that these initiatives were insufficient for improving educational outcomes and student results for rural, financially disenfranchised and illiterate learners.

1.3.3 Conclusions

The preliminary literature indicated that educational inequality came across in various forms in both developed and developing nations. In some areas in the USA, deficiencies were prevalent with regard to access to science resources from K-12. The more well-off schools had better equipment, laboratories and teachers that were competent in delivering Science content; in contrast to schools in the lower socio-economic status areas where basic resources were few or practically non-existent. There were no Science laboratories and the proficiency of the teachers in delivering Science content was questionable.

An investigation into the upper secondary schooling drop-out rate in Norway revealed that educational inequality was one of the mitigating factors. Those students, who chose vocational studies after mandatory schooling, came from homes where the educational level of the parents was low. These students dropped out in higher numbers than those students who remained at normal schools. It was also found that the "White" majority of students in the country were adequately catered for in terms of appropriate instruction content, whereas the needs of students from ethnic minority migrant groups were not catered for because of the teachers' lack of training in this regard.

Educational discrepancies were also apparent in the Nigerian schooling system. There was a gaping chasm between the schools that the underprivileged children attended and those from backgrounds that were more affluent. The study (Omideyi: 2008) revealed that the government spent more money on students in the better off neighbourhoods, whereas the following challenges were noted in the disadvantaged areas; the teachers were not suitably qualified, textbooks were antiquated or in short supply, certain amenities were lacking, and the methods of instruction were unsatisfactory.

From a South African perspective, it was uncovered that educational inequities in the schooling system were present in various forms. In one study, it was found that rural schools were the worst hit when it came to educational disparities: SGB members lacked the requisite knowledge and skills to assist with school management issues, many of the schools were underdeveloped because of their physical remote location and basic essential resources like water and electricity were lacking. These shortfalls directly influenced the quality of the teachers and the standard of education at these schools.

In another study conducted by Maila and Ross (2018) it was found that matriculants in rural schools felt ill-equipped to transition to tertiary education effortlessly because of the following factors: in some schools teaching was non-existent, and in others, there was no access to vital facilities like libraries, computer laboratories, extra-curricular amenities and vocational counselling. Not only did this situation affect matric

results, but it also did not sufficiently prepare those that made it to deal with the challenges that came with the pursuit of a post-school education.

In a further investigation, it was found that despite government's rescue plan in the form of the NNSSF, educational inequities were still present in some schools. Although more money was spent on the previously disadvantaged schools, there would appear to be no return on this investment. Some teachers indicated that the scarcity of physical resources was to blame, as the procurement process was in the hands of people who were ill-equipped to do the job properly.

Thus, it is apparent that educational inequality is a global phenomenon and comes across in various forms. It is not unique to the South African context. The issue of inequities in education locally was put to a further test when the Covid-19 pandemic graced South Africa's shores. The question that subsequently arose was how well-equipped (in terms of additional resources) South African schools were to cope with a challenge of this magnitude. Government's mandate on how schooling should be conducted during this pandemic necessitates that more about the disease be known.

1.4 THE CHALLENGE OF COVID-19 FOR SCHOOLING

1.4.1 What is COVID-19?

A coronavirus is a type of a regular disease that produces a contagion in the nose, sinuses, or upper throat. In early 2020, after an eruption in China, the World Health Organisation (WHO) classified SARS-CoV-2 as a new type of coronavirus. Very quickly, this outburst spread around the world. COVID-19 is an illness triggered by SARS-CoV-2 that can result in a respiratory tract infection. It can affect the upper respiratory tract (sinuses, nose and throat) or the lower respiratory tract (the windpipe and lungs). The illness is transmitted in a manner similar to other coronaviruses, primarily through physical contact with another individual. This disease can range from being slight to fatal. Currently, there is no vaccine available to cure this disease although several research studies have been underway since the outbreak of the pandemic. Medical experts are of the opinion that it could take 12-18 months to find a harmless serum that would be effective in dispelling the ailment (Smith, 2020).

The most significant implication for humanity in general, but schools in particular, was that anyone could get COVID-19. If a person had the disease, symptoms could be evident in as few as two days or in as many as 14 days. This could put everyone at risk especially in a school set up where young children might not fully understand or have the knowledge pertaining to the epidemic (Smith, 2020).

The disease generally spread from one person to the next. It could primarily proliferate when an infected individual coughed or sneezed. The droplets could be dispersed as far as six feet away. If these contagious droplets were breathed in or swallowed, then the illness could infect the body. In addition, it must be noted with the utmost seriousness and caution that some individuals might already have the virus, but they have not displayed any warning signs, thus making people around them vulnerable to infection (Smith, 2020). The disease could also be contracted through touching a surface or object the germ was on, and then touching your mouth, nose, or possibly your eyes too. The virus could last for many hours on different types of surfaces, thus making continual disinfection mandatory (Smith, 2020).

Since the transmission rate was relatively high, one person could spread the infection to between 4.7 and 6.6 others, schools could be a potential disaster area if precautions were not followed – the most important being washing hands frequently, sanitising common areas regularly, practicing social distancing, wearing cloth face masks and being on the look-out for early warning signs of the disease (Smith, 2020). Thus, the question that arises is, how well-equipped are schools in coping with a global pandemic? Do schools have the necessary infrastructure and resources to implement changes? In line with the global fraternity, South Africa closed its schools on 17 March 2020 to minimise the spread of the virus, especially among the vulnerable. Measures were put into place to slowly return to school, with certain grades only returning to school sometime in June 2020.

1.5 STATEMENT OF THE PROBLEM

South Africa's historical context had contributed significantly to the way education was managed within the country. With certain educational privileges being the order of the

day, specifically reserved for elite groups, there was bound to be disparities that could not be redressed within a short space of time. The challenge faced by the new government would be to bring all racial groups on par within the educational framework. With the unexpected global pandemic, COVID-19, which had also become a part of our lives, South African education faced an even more serious threat where access to adequate resources had never been more significant.

1.6 RESEARCH QUESTIONS

Main research question:

How does educational inequality manifest in schools in the Highveld Ridge East Circuit of Mpumalanga in terms of access to physical resources?

Sub-research questions:

- What factors contribute to educational inequalities within schools in respect of access to physical resources?
- What impact does educational disparities in terms of access to physical resources have on teaching?
- How does educational inequality with a special focus on physical resources impact learning?
- How well-equipped are Mpumalanga schools in dealing with a global pandemic?

1.7 PURPOSE, AIMS AND OBJECTIVES OF THE STUDY

The aim of this study was to determine how educational inequality manifested in South African schools post-1994 in terms of access to physical resources and to establish how these inequalities impacted on the schools themselves.

The objectives for the research were to:

- Determine the factors that contributed to educational inequality in respect of physical resources

- Ascertain the impact of educational disparities pertaining to physical resources on teaching
- Establish the effect of educational inequality in respect of physical resources on learning
- Determine how well-equipped Mpumalanga schools were in coping with a global pandemic.

1.8 RESEARCH METHODOLOGY AND DESIGN

1.8.1 Research approach

A paradigm is composed of a collection of dogmas and decrees which for boffins in a specific speciality dictate what should be studied, how explorations should be effected, [and] how the consequences should be analysed and understood (Bryman, 1988:4) as cited in Bryman et al., (2014:19). According to Maree et al., (2016:52), a paradigm is a group of preconceived ideas about central facets of truth which gives rise to certain views about the world. It tackles vital conventions regarding conviction, such as principles about the spirit of existence (ontology), the correlation between those who know and what is known (epistemology) and rules about approaches. Lincoln and Guba (1985:15) as cited in Maree et al., (2016:52) define paradigms in the following terms: theories that exemplify what we ruminate on about humanity (but experience difficulties validating). What we do on the planet, including the measures we take as seekers of the truth, cannot take place without allusion to those standards. “As we think, so do we act.” This infers that these concepts operate as the lens or classifying norms by which actuality is understood.

A qualitative research approach will be utilised to undertake this study. Moreover, a multiple case study will be conducted with the six schools that will be sampled.

Qualitative research approaches:

- Usually stress the use of words rather than emphasising numerical indicators in sourcing and interpreting statistics

- Primarily advocate an inductive approach to the liaison between philosophy and investigation, in which importance is attached to producing rather than attesting beliefs
- Disregards the customs and rules of the genuine logical ideal and of positivism specifically, in partiality for a stress on the means in which entities make sense of the world in which they live
- Regard socially constructed truths as both ever changing, evolving and growing, as understood by human beings (Bryman et al., 2014:31).

Therefore, an interpretivist paradigm (which is suitable for qualitative research) will be appropriate for this study. Interpretivism proposes that any investigative approach has to take cognisance of the dissimilarities between people and the entities of the natural disciplines. Thus, this method expects the social scientist to understand the skewed meaning of interpersonal liaisons (Bryman et al., 2014:14).

1.8.2 Population and sampling

The researcher intended to conduct a qualitative research study to ascertain how educational inequality in terms of access to physical resources manifested within South African schools post-1994. The researcher had identified six schools in the area that the researcher considered most likely to yield significantly conclusive evidence on the matter of educational disparities with the spotlight being on access to physical resources. Once permission had been granted by the appropriate stakeholders in the chosen sites, the researcher intended to conduct the research at the following six schools in the Highveld Ridge East Circuit of Mpumalanga, in the Republic of South Africa: School A (a township school), School B (a former House of Delegates School), School C (a former House of Representatives School), School D (a semi-subsidised school with a religious ethos), School E (a special school), and School F (a former House of Assembly School). All six schools were situated within a 5km radius from the researcher for ease, viability and convenience purposes.

A non-probability sampling approach comprising of purposive and convenience sampling will be utilised to undertake this research. The researcher has chosen the various sites indicated, as the researcher believes that these sites are information rich and will yield conclusive results pertaining to the research question. Secondly, the location of these sites is convenient and easily accessible to the researcher (Maree et al., 2016:197-198).

1.8.3 Instrumentation and data collection techniques

According to Bryman et al., (2014:42), there are numerous ways to collect qualitative figures that can also be interpretive methods:

- Direct observation: taking stock of the site or the study of participants without manipulating or personal involvement in any way
- Participant observation: involves the engagement and input of the researcher in the group or context under scrutiny
- Qualitative interviews: study participants providing unrestricted responses during semi-or free interactions with the questioner delving for and examining topics in profundity
- Surveys, open-ended printed questionnaires and other appraisals about, for example, ideas, preconceived notions and points of view
- Focus groups: collaboration between several subjects through assisted, formal or informal dialogues
- Language-based methods: for example, speech and conversation interpretation
- Content analysis: the pool and qualitative interpretation of transcripts and official papers.

According to Maree et al., (2016:77), several ways of amassing information are available as the researcher and respondent flow into a mutual affiliation. Statistics can be sourced in different methods: on site notations of the common experience, journal notes, interview texts, others' comments, narratives, writing letters, autobiographical accounts, official papers such as class schedules and bulletins, and scripts such as rules, doctrines, images, allegories and personal anecdotes.

1.8.4 Data analysis and interpretation

Data is examined and scrutinised in order to find solutions to the research question and probably engender models.

According to Bryman et al., (2014:42), particular methods include:

- Coding: finding noticeable refrains, notions and designs in the data
- Statistics: after coding, condensing and interpreting designs, using evocative figures and association examination
- Narrative analysis: the focus is on discourse and content, such as language, the use of words, narrative themes and gist of contexts, and creating the social, cultural and political situations of the account
- Content analysis: interpreting written or pictorial texts and official papers to recognise developing themes and meanings by pinpointing, for example, rate of recurrence of words.

Currently, qualitative data-analysis packages include Ethnograph, NVivo, NUD*IST and ATLAS.Ti (Maree et al., 2016:126).

1.9 RELIABILITY AND VALIDITY/ CREDIBILITY AND TRUSTWORTHINESS

Where reliability and validity are the key measures in quantitative research, trustworthiness is of paramount significance in qualitative research. Determining trustworthiness is the acid test of data interpretation, results and endings. Guba (1981) as cited in Maree et al., (2016:123-125) puts forward four yardsticks that should be taken into account by qualitative researchers in search of a reliable study:

- *Credibility*

Credibility grapples with the questions: How compatible are the outcomes with actuality? How do I make sure that my findings are believable? In the literature, many

tactics are expostulated to guarantee the integrity of the research. These comprise of the acceptance of deep-rooted investigative styles, a research plan that fits the question under scrutiny, an academic reinforcement that is allied with the research question and approaches. Credibility is also enriched through the establishment of a timely understanding with the respondents and the institutions involved, but also through distinct, purposive selection, comprehensive data sourcing approaches and triangulation (Maree et al., 2016:123).

- *Transferability*

Unlike generalisability, transferability does not entail sweeping assertions, but requests students of research to establish networks between units of a study and their own knowledge or research. To create a surge in transferability, qualitative researchers should examine (a) how distinctive the subjects are to the situation being scrutinised, and (b) the milieu to which the outcomes are suitable. Hereon, the students can study the research paper and ascertain if the discoveries can be applicable to their situation or locale. It is the researcher's task to convey the full image of the situation and then give the reader the freedom and choice to establish if the research can be assignable to their situation (Maree et al., 2016:124).

- *Dependability*

Dependability is validated through the research strategy and its execution, the effective detail of sourcing information, and the thoughtful evaluation of the project. The primary research design may transform as the research takes place, and novel data sources and data collection methods are utilised to reinforce the investigation. Journaling (memoing) the verdicts taken during the research course, particularly as far as the data sourcing and interpretation procedure goes, will aid others to keep abreast of the reasoning condensed in the study. The analysis procedure should be recorded so that others are able to see the decisions taken, how the researcher went about the analysis and how the researcher arrived at the interpretations (Maree et al., 2016:124).

- *Confirmability*

Confirmability is defined as the degree of impartiality or the extent to which the results of a study are moulded by the respondents and not by researcher prejudice, inspiration or concern. Ways to increase confirmability embrace triangulation that is, diminishing the influence of researcher preference. To decrease researcher unfairness, researchers need to acknowledge their own preconceived notions. The more they become entangled with the research respondents and with the investigation, the higher the threat of prejudice becoming a part of the study. In some cases, because researchers forge alliances with the research respondents, they are lured to see what they want to see and sincerely fail to see things that do not match their expectancies (Maree et al., 2016:125).

1.10 RESEARCH ETHICS

It is essential to pinpoint the ethical considerations about the research. A crucial ethical component is the issue of protecting the respondents' identities. This could entail getting letters of agreement, gaining consent to be questioned, agreeing to disposing of audiotapes and so on. It is also vital for the researcher to be au fait with the moral code of the particular organisation that supervises or finances the study (Maree et al., 2016: 44). Bryman et al., (2014:121-127) regard the following four ethical components as essential to research studies:

- Harm to participants

Most individuals consider danger to respondents as undesirable. Harm can be bodily harm, harm to respondents' advancement or sense of worth, pressure, harm to vocational probabilities or potential occupation, and "persuading respondents to carry out reprehensible feats" (Bryman et al., 2014:121).

- Lack of informed consent

The standard of informed consent prescribes that respondents should be wholly primed about the research procedure. Involvement in research entails well-versed, unforced accord of subjects. Researchers should notify respondents, in a language that they can comprehend, of the goals and inferences of the research project and any

other concerns that might likely be expected to affect their inclination to partake (Bryman et al., 2014:124).

- Invasion of privacy

Privacy is related to the idea of informed consent, because the research respondent yields the right to privacy to the extent that he or she has an understanding of what participation is likely to entail. Giving informed consent does not do away with the right to privacy completely. When individuals consent to be interviewed, they often decline to respond to particular questions on whatever basis they feel are validated. Invasion of privacy can also be a serious concern when dealing with specific types of data, such as snapshots (Bryman et al., 2014:127).

- Deception

Deception takes place when researchers display their research as something other than what it is (Bryman et al., 2014:127).

1.11 LIMITATIONS AND DELIMITATIONS OF THE STUDY

The most important limitation identified was the global COVID-19 pandemic that had affected schooling across the world. Schools remained closed in South Africa from 17 March 2020. A slow phasing in of certain grades was forecast for some time in June. This was what had surfaced on a public platform, Facebook, on 10 June 2020, “three schools have put up notifications to the general public of forced closure for two weeks after someone in the school was tested positive for COVID-19.” If more schools were going to report such developments, it could perhaps make government re-think the re-opening of schools. Additionally, since outsiders were not allowed at schools, would the researcher gain entry into the sampled schools? Furthermore, how safe would it be to all stakeholders concerned, especially in terms of safety measures to counter the spread of the virus? The Research Ethics Committee guidelines, which were drawn up in view of the pandemic and its subsequent effect on research, suggested

resorting to remote data collection strategies so that social distancing was not compromised. The irony was that the study focused on the access to physical resources. If a school was lacking basic essential resources, then remote data collection strategies that required specific equipment was not feasible at some of the sites.

Another limitation in the research study would be failure to procure consent for the study at the chosen site and refusal by identified participants to take part in the study. Participants dropping out at any given point during the study was also beyond the control of the researcher. The reality was that not everything was going to proceed according to the idealistic, sometimes utopian, scheme of events outlined on paper.

Although it had been left to the researcher to choose cases that would help to answer the research questions or achieve the research objectives, the researcher to a certain degree did have misgivings about the chosen targets. She wondered if the former House of Assembly School would be open to her conducting research at their school as 24 years after democracy the staff was still 98% White. The researcher also had concerns about her safety in the township. Unfortunately, these biases are a very real part of experiential research and could not be ignored or undermined. Despite these misgivings, the researcher instinctively knew that out of all the schools in the area, the six schools identified were the ones most likely to yield the most productive results. To counter any negativity, antagonism or resistance, the researcher intended to pledge her time to serve the school whenever her assistance might be required for fundraising or sporting activities or in any other area if necessary.

1.12 DEFINITION OF KEY CONCEPTS

Inequality refers to the quality of being unequal or uneven (Merriam-Webster: 2019).

Circuit refers to an assigned district or territory (Merriam-Webster: 2019).

COVID-19 refers to a mild to severe respiratory illness caused by the coronavirus (Merriam-Webster: 2020).

1.13 CHAPTER OUTLINE

This empirical investigation into the phenomenon of educational inequality on access to physical resources in a sub-section of the province of Mpumalanga comprises of five chapters.

Chapter one puts the focus of the study into perspective outlining the points of departure by contextualising the investigation.

Chapter two focuses on scholarly reviews closely related to the phenomenon under scrutiny. The researcher sourced international examples of educational inequality in its various forms to widely contend that educational disparities are present globally. To give the study a national perspective, educational inequalities were uncovered in South African education in a multitude of ways, and several were narrowed down to the prominent focus area which is scarcity in terms of access to physical resources.

Chapter three deals with the research method underpinning this study. A qualitative research approach was used, encompassing a multiple case study design. The data collection strategies were outlined together with the subsequent analysis and interpretation of data amassed.

Chapter four explains how the data collection process unfolded. An interpretation of the data followed together with the resultant findings. The empirical findings and scholarly findings were triangulated.

Chapter five brings everything together whereby the researcher was able to arrive at conclusions based on the evidence around the phenomenon under scrutiny. Thereafter recommendations were suggested to counter the problems uncovered.

1.14 DESCRIPTION OF THE RESEARCH PLAN AND TIMELINE

- Two months per literature chapter
- Eight weeks for ethical clearance
- Eight to ten months for data gathering and analysis

- One month for final chapter
- Six weeks for editing, layout and printing

1.15 CONCLUSION

From the preliminary literature, it is blatant that inequalities within education are a global phenomenon stretching from developed nations to developing economies. These inequalities appear to manifest in various forms from distribution of resources to exclusion principles to inferior curricula. Within the South African context, a study needs to be undertaken to ascertain the extent and measure of disparities within the educational sector with a special focus on access to physical resources. The challenges faced in education can only be compounded by a global pandemic that has arrived at our doorstep, affecting the very core and fibre of every individual's existence. If the country has any hope of moving forward economically, the problems at the root need to be identified and addressed and the source appears to be in the sphere of education.

The next chapter essentially deals with a comprehensive literature review. It firstly looks at the theoretical principles underpinning the phenomenon under scrutiny. It is also necessary to place the study within a backdrop of international and national examples of whether educational disparities were evident or not. If educational inequities were prevalent, in what way did they manifest. Also, more evidence needs to be sourced on the issue of the global pandemic, the corona virus, simply because of its direct and significant impact on education in particular. Legislation governing school resourcing as well as government expenditure on education will help to ascertain how legal aspects impact on educational reserves within the South African context.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

There is no doubt that educational inequality is a reality in modern day society – a preliminary search of relevant literature has indicated that this phenomenon is prevalent from the most affluent to the most indigent of societies. It is time to peel away the layers blanketing education to uncover whether an equitable distribution of resources both internationally and locally is the norm or the exception to the rule. How does fair or unfair distribution of physical resources affect teaching and learning? What value has been added to educational development and change since the advent of democracy in 1994? According to Sayed, Kanjee and Nkomo (2013:109-110), with explicit emphasis on the matter of parity, the inspective effort of Fiske and Ladd (2004) and the gestalt research of Chisholm (2004) have shown that disproportion is rampant in terms of social status, language, sexual group and area (with province, metropolitan and rural, township and suburb) surfacing as major distributive markers.

2.2 CLARIFICATION OF KEY CONCEPTS

Educational has to do with schooling (Reverso.net: 2019).

Inequality refers to the attribute of being imbalanced or inequitable such as societal disproportion or an inconsistency of dissemination or prospect (Merriam-Webster: 2019).

Educational inequality is the disparate allocation of scholastic supplies, inclusive of but not restricted to; school financing, certified and proficient educators, printed material and modern-day equipment to socially excluded groups. These societies are often those that have been previously deprived and beleaguered (Wikipedia: 2019).

Access refers to the freedom or ability to obtain or make use of something (Merriam-Webster: 2019).

Physical refers to the perceptible material things required (Merriam-Webster: 2019).

Resources refers to a source of supply or support (Merriam-Webster: 2019).

2.3 THEORETICAL FRAMEWORK

In order to contextualise this study, it has to be placed within a niche that would be supported by the evidence that would be forthcoming in substantiating, clarifying or disputing the theories that underpin it. The theories that would now appear most fitting is the critical theory because it deals with the perpetuation of social inequalities and the theory of needs because it deals with the satisfaction of human needs, both of which contribute to the existence of educational inequities.

2.3.1 The critical theory

This theory essentially deals with the analytical significance of encounters as they correlate to sexual category, ethnic grouping, status and other ways in which people are suppressed in society. Conflict (such as status disparities in Marxism) and disparity are important in attempting to make sense of the subtleties of anthropological interactions. Society perpetrates inequities from one cohort to the next, which inevitably leads to defiance to unfairness of this nature (Maree, 2016: 23).

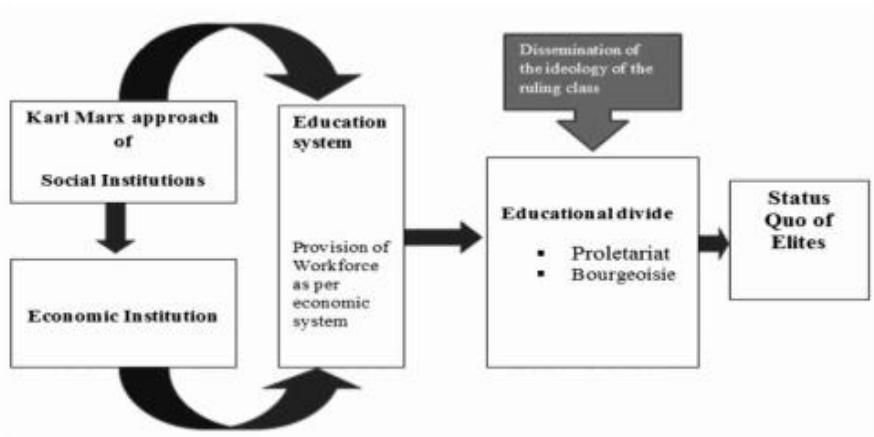

Figure 1: Karl Marx's Conflict Theory and Educational System (Omer & Jabeen, 2016)

According to Harcourt (2016), conflict theory essentially regards the function of schooling as preserving societal inequity and sustaining the dominion of those who

reign supreme in various cultures. Functionalists on the other hand perceive instruction as a constructive influence on a structured social order. Conversely, proponents of the conflict theory see formal schooling structures as being bent on propagating the status quo by deadening the economically disadvantaged rungs of society into being subservient employees.

Both functionalists and conflict philosophers concur that most academic institutes have a system of intellectual categorisation in place, but they differ about how it endorses that classification. Functionalists claim that educational organisations organise students according to intellectual capability, but conflict theoreticians contend that places of learning rank students according to definite class and cultural lines (Harcourt, 2016).

Conflict philosophers further assert that not only does the fiscal side support the White elite, but also the way in which an institution assesses students, with special reference to intelligence quotient assessments which organisations can use to arrange students. They contend that these assessments, which allege to test aptitude in reality test ethnic information and thus subsequently demonstrate ethnic prejudice. The academics who design these tests argue that they have eliminated prevailing examinations of any such ethnically prejudiced questioning, but advocates of the conflict philosophy counter this argument by contending that ethnic impartiality cannot be avoided. A significant number of these assessments comprise of a factual data foundation that is mostly ethnically sensitive (Harcourt, 2016).

The critical theory is relevant to the study because it reveals that the upper echelons of society continually have access to better education and its subsequent resources. The lower rungs of society are often left in the doldrums exposed to inferior quality education and less desirable resources. One has to just cursorily glance at one's immediate vicinity to identify an element of truth in the researcher's observation.

2.3.2 Theory of needs

Abraham Maslow, a clinical psychologist, theorised that people have various needs that have to be satisfied in order for them to function at any level of their being. He

arranged these needs into five categories. Of these five groups, three can be applied to educational inequality. Educational institutions need to make an effort to cater to these needs to ensure some sort of holistic development in society's citizens. The first need is the physiological, basic, essential needs that comprise of the need for food, water, shelter, education and healthcare that need to be assuaged before any of the other needs (van Schalkwyk, 2011:137-139).

According to statistics released by the World Food Programme (WFP) 2019, a staggering 310 million needy children received a much-anticipated meal around the world: 100 million in India, 48 million in Brazil, 44 million in China, and 9 million each in Nigeria and South Africa. The last decade has shown increasing support for school feeding programmes globally. One of the critical areas that has benefited substantially from such a scheme was education. Furthermore, the WFP report indicated additional advantages of children being fed at school. Schools that provided meals to indigent children could assist to curb the onslaught of compounded impoverishment by increasing the finances of households and communities. For family units, the worth of receiving sustenance at school equated to about 10% of a household's earnings. For large family circles this could imply a sizable saving (World Food Programme, 2019).

Therefore, it had become incumbent upon the government of South Africa to put certain intervention strategies in place to address a dearth of some of these needs that were common among the poorest of the poor. According to the Community Survey Report (2016), measures like making education available at no cost, providing meals gratis, financing transportation, and social allowances have ensured an upward surge in school attendance.

The second need, which is the need for safety and security within a school environment, is essential for both teachers and students alike (van Schalkwyk, 2011:137-139). According to Lacoe (2013), one probable foundation of educational inequity was school safety. Not feeling secure at a child's place of learning could possibly have an impact on the child's scholastic achievement, by being a cause of worry or being a trigger for warning signs of depression, preventing children from focusing in class, and ultimately leading to possible troublesome conduct that is disturbing to other students. Experiencing anxiety regarding being safe at school

could at the extreme even prohibit students from attending school at all. Neighbourhood violence may come to the fore in under performance in class because of feelings of insecurity. Lacoe (2013) further identified three general related elements that pertained directly to feelings of security at school: school mayhem, school discipline and racial diversities.

This observation of Lacoe had a ring of truth around it. Students who felt threatened at school would ultimately not want to be in an environment that was a danger to their person in any way. This would lead to frequent absenteeism that eventually has an impact on the student's performance (Lacoe, 2013). The third need was the need to feel valued and appreciated; hence, the need for self-esteem comes into play here. The need for recognition applies to both teachers and students alike (van Schalkwyk, 2011:137-139).

The researcher believes that teachers are the most important resource in any school. Their worth in any educational institution cannot be underestimated. Teaching is a calling, for certainly the paltry remuneration is insufficient for the physical, mental and psychological demands of the profession. Treat a teacher well and most will unceasingly go the extra mile to bring out the best in the students. Teachers require adequate teaching resources, empowering working conditions, an inspirational forward-thinking leader and supportive and co-operative parents. The bonus would be self-motivated students.

Is my perception a utopian pie in the sky far removed from the reality on the ground? Most certainly, if educational inequalities continue unabated in South African schools.

2.4 MANIFESTATIONS OF EDUCATIONAL INEQUALITY

2.4.1 Global manifestations of educational inequality

Subjecting the USA, United Kingdom (UK) and Ireland as examples of developed countries, and Malaysia and Pakistan as developing countries, to scrutiny, will help to shed more light on the issue of global educational inequality.

2.4.1.1 The United States of America

According to Gamoran (2013), President of the William T Grant Foundation, dissimilarity in instruction and other aspects of existence hindered economic and civic progress in the USA. The American scenario was reminiscent of South Africa as scholarly end results were directly influenced by socio-economic backgrounds and ethnicity, and in the American milieu, excessive immigration as well. There was verification of extensive variances between the amount of under achieving students and in the quantity of best high-fliers in the USA. This incongruity was attributed to two key stimuli: the vast populace as well as the high incidence of inequity.

Gamoran (2013) further argued that although the top performers were ranked under other high achieving lands, there was still a significant number of exceptional overachievers in the USA. The result was that the standard for excellence, in respect of exclusive achievement, persisted in the USA. This was validated by the point that the USA yielded more Nobel Prize victors than any other nation, created almost as many copyrights yearly as all the other lands jointly, and the USA structure of post-school instruction continued to attract throngs of students from across the globe. These acts of superiority, however, prevented people from noting the glaring variances within the instructional schooling structure. At the individual level, though, it was certain that children born into monetary and societal downsides struggled to advance in society and had inferior scholarly and occupational successes in adulthood.

2.4.1.2 The United Kingdom

How does the UK perform in the educational disparity argument? According to Machin and McNally (2011), disproportions in academic achievement could be identified at different junctures through a person's life. Incongruences in instruction seemed to become distinct at the beginning of the lifetime, as variances in pedagogic outcomes were apparent even before infants began official education. The environs in which the children were raised, and their local family units were openly liable for them going to school with contrasts in levels of intellectual and non-intellectual skills.

Similarly, in South Africa a child from a previously disadvantaged group who is still trapped in poverty and living in informal settlements within townships, who goes to the same school as children in the suburbs, would appear to be starting his/her scholarly journey at a distinct disadvantage. Couple that with long commutes, lack of basic necessities and inadequate resources as well as in most instances, a lack of parental support and you have an imbalance of epic proportions. This cursory personal observation was gleaned from the researcher's decades of experience in education from which she aims to delve deeper into the phenomenon of educational inequalities. Machin and McNally (2011) went on to point out that the differences noticed at initial school entrance persisted through the years of requisite instruction. These variances could either escalate or lessen as children's abilities at school permitted them to proceed up or down the division of educational effects. Educational imbalances persisted especially in the years of necessary schooling and seemingly did not seem to end there. Edifying obstacles that children were subjected to in the years of pre-school and mandatory schooling had a dominant effect on whether individuals became a part of post-compulsory higher education or not (Machin & McNally, 2011).

2.4.1.3 Ireland

Ireland, neighbour to the UK, was not immune to educational inequality either, it would seem. According to Murphy (2008), the *Irish Independent* (2005) recounted that 24 schools in the Republic of Ireland had a pre-Leaving Certificate drop-out rate of 60% or more. Within the South African educational sector, the general leaving rate was approximately 4%, with the uppermost leaving rates (almost 12%) documented after Grade 9 (DBE, 2011a:3 as cited in Sayed et al., 2013:111). The Leaving Certificate was obtained at age 16, which signified the close of the statutory years of instruction, which was the British equivalent of the General Certificate of Secondary Education (GCSE) examination. Murphy (2008) deemed socio-economic standing to be a noteworthy factor and a potent marker of growth or dearth thereof through the instruction structure.

Murphy (2008) further mentioned McSorley's (1997) clarification for some of the motives for unfairness in education within the Irish situation. She limited the glitches to three notably crucial aspects that compounded the disproportions in education:

ethnic issues, the educational process itself and economic influences. Firstly, she declared that parents in communally and frugally deficient areas “do not have the financial, intellectual and psychological means to ensure their offspring are woken up, clothed, given meals, with homework well done and school attire, books and food all prepared timeously for the school day.” Children from most township schools came to mind here.

Secondly, she asserted that inconsistencies in the Irish milieu endured because of the instructional process itself. McSorley’s analysis of the Clondalkin region of Ireland disclosed that over 33% of pupils did not attend school on any given day, with more than 50% of the public exiting school by age 15. This was partly because the pedagogic matter and institutional structures did not fulfil the requirements of the indigent pupils. If learners steadfastly believed that the instructional system was purposely primed to ensure that various groups did not advance with regard to examinations in particular, they resolved to exit before it certified them ineffectual. The question that requires answering here is whether the South African education system currently caters to the needs of the country as a whole and the relevance of the content being taught in schools today (Murphy, 2008).

Money was another reason for the persistence of educational differences within the Republic of Ireland. Murphy (2008) contended that Tovey and Share (2000) revealed that dearth worsened the position for the working-class learners to exploit any benefits that the structure could suggest. In addition to this, they asserted that parents from frugally impoverished backgrounds battled to create a hopeful coalition with the education system. Similarly, the researcher is of the opinion that when a family in South Africa is struggling every day to make ends meet or coping with diseases and other social ills, how can one possibly expect these parents to take an interest in their child’s education?

The issues identified within the Irish educational scenario did not end there unfortunately. Within the schooling background in Ireland, Murphy (2008) contended that the view that exclusive fee-paying institutes offered a loftier level of education than that which was on offer at government schools was on the increase. There had been

a striking fiscal swell in this area. In Murphy's (2008) report, he mentioned that Thrupp states, "working class pupils are most liable to be left behind in 'sink' schools with more poor intakes as affluent groups select trendy schools for positional benefit." Was this not a mirror reflection of the South African context as well? Parents enrolled their children at former model C or private schools at exorbitant costs in pursuit of a better-quality education. Those that were left in government schools came from economically and socially disadvantaged backgrounds with a host of other issues that affected the school as a whole. Murphy (2008) closed by stating that there was more attestation that those pupils who had the resources, monetary or otherwise endeavoured to gain the best advantages out of the educational system.

2.4.1.4 Malaysia

Rao (2008) asserted that there was a meaningful correlation between parity in education and commercial advancement. He explained that fiscal engineers not only chose how reserves were consumed but were also influential in deciding who got what. This, he elucidated brought up the crucial matter of fairness and unbiasedness. He specified that the dispersal of instructional supplies to schools would not only bring up the matter of justness but would also determine its value. In other words, when the resources were dispersed fairly, school excellence across the nation should be consistent. The researcher certainly does not concur with this standpoint.

Undoubtedly, resources are important, but there are several other important factors that have a bearing on the value that a school provides, e.g., the qualification and motivation of the teachers, the implementation of the curriculum as well as the curriculum itself, and the leadership provided at the schools, notwithstanding the background of the students as well. Rao (2008) ascertained school quality by measuring what he terms "resources" used at schools: student intake, number of educators with higher degrees, pupil-teacher ratios, and pupil spending and textbook per student. His conclusion was that an impartial allocation of supplies would lead to superior schools that would have a constructive benefit on the commercial advancement of the country.

The researcher believes that his argument is flawed. She agrees with Rao's notion that an equitable distribution of learning materials is of paramount importance, but quantity does not determine quality. You can have all the material resources in the world but if you do not have the staff capable of utilising these resources, then they are reduced to being mere "White elephants." He also does not mention teaching resources. How are teachers to produce quality results if they do not receive valuable teaching aids as well? The researcher agrees that economic growth can be linked to quality education but there are several other factors at play here as well.

2.4.1.5 Pakistan

Omer and Jabeen (2016) investigated whether Pakistani private schools were maintaining the status quo when viewed from Karl Marx's conflict theory in education. The primary goal was to ascertain the disparity between the standard of education in private and public schools when subjected to a class-based philosophy. They noted that in spite of city public schools having much needed library and laboratory amenities, these were not managed appropriately. The printed material in the libraries were antiquated and there was no reading culture present among the students. Since supplies and equipment were scarce in the laboratories, students were not in a position to carry out practical tasks on their own. There was limited or non-existent support and direction from technical practitioners. Similar situations were observed in institutions in rural areas as well.

In contrast, the privately run schools in the affluent areas were well-equipped in terms of library and laboratory resources. Reading was encouraged and followed up with discussions pertaining to the books that were read. Senior students were deeply involved in laboratory activities under supervision of qualified personnel.

In conclusion, Omer and Jabeen (2016) asserted that the outcomes from their observations endorsed the supposition underpinning Karl Marx's theory, i.e., elites maintain the status quo in the education system. As the affluent have more, and better reserves, they appear to have more life chances to superior prospects and the quality of instruction and learning. They are thus in an advantageous position which allows them to reap the rewards of better end results in national assessments. This paves

the way for these privileged students to once again gain a strong foothold to ascend the rung to tertiary education suitably armed. Once qualified, they eventually end up in well-paying jobs.

Conversely, very few students in the public domain are able to even sit for a national examination. Poorly resourced schools, high pupil-teacher ratios and a lack of general affordability are compounding factors. It is unfortunate that education provision in the majority of countries has become a lucrative commercial enterprise. Private schools are on the increase. Curro is such an example in the area where the researcher resides. The school has a substantial property, security access, massive soccer and rugby fields, other well established sporting facilities, well-maintained lawns and gardens, and aesthetically pleasing buildings. This is one's first impression of the school. It screams privilege and superiority. It goes without saying that education within such surrounds will come with a significantly high price tag as well. Students attending such a school are sure to enjoy many more benefits and privileges than students attending under-resourced overcrowded government schools. This situation continues to ensure that educational disparities persist.

2.4.2 National manifestations of educational inequality

It is obvious then from the review of literature abroad that the grass was not always greener on the other side. Educational inequalities were a part of sophisticated, developed economies as well as developing ones too. The question therefore arises as to where South Africa fits in, in this global scheme of things.

2.4.2.1 Inequality in Western Cape schools

An exploratory study of disparity within the Western Cape schools undertaken by Van der Berg (2004) puts things into perspective. Although his studies concentrated on the situation in this particular province, he reiterated that the results were pertinent to education within the broader South African context as well. He indicated that both socio-economic circumstances and inputs of instructional supplies (educators, books, learning aids, etc.) had a significant impact on educational outcomes.

Van der Berg (2004) explained that civic outlay by cultural orientation had been amended from the mid-seventies. There was a major rise in general public spending on school instruction as well as an advancement towards Black didactic institutes to ease ethnic surfeits. However, despite new growths, the quantity of learners triumphing in matric had not really escalated since about 1994, and matriculation exemptions had dwindled, while the total of learners writing matric had spiralled. The discernible shortcomings in education eminence were evident in matriculation outcomes and systematised numeracy and literacy appraisals. In a quiz on numerical aptitudes and skills in Grade 4 in 12 African countries (Measuring Learning Achievement or MLA), South Africa's results were the most shocking of the nations evaluated.

The picture that emerged from Van der Berg's (2004) study of inequity in the Western Cape was as follows: disparities appeared to be the norm rather than the exception in South African schools and still mainly proceeded according to ethnic grouping. Income inequities (in terms of instructional materials) had declined but inequality prevailed in terms of school outcomes and the marked variability of performance in economically disadvantaged institutions that drew attention to drastic inadequacies in the main part of the school structure. Van der Berg explained that upgraded effectiveness in schools was a vital necessity for enhancing economic outcomes, as outcome disparities were mirrored in matriculation pass rates which filtered down into the labour market, and sometimes also via prospects for higher education, which once again propagated income inequities.

2.4.2.2 Holborn's take on education in South Africa

According to Holborn (2013), South Africa's education structure appeared to be in a crisis. In 2001, 1.2 million pupils enrolled in schools in the first grade but only 44% sat for the National Senior Certificate (NSC) examinations in 2012. Only 12% of that Grade 1 group passed matric well enough to advance to university studies and only 11% triumphed in Mathematics with grades of 40% or more. She indicated that Joint Education Trust (JET) Education Services (2006), a charitable research and development establishment, credited in-classroom components, such as educational instruction and learning materials, in-school aspects, such as headship and

management, and out-of-school components, such as parental participation and socio-economic status to be at the root of the educational quandary in South Africa.

2.4.2.3 Pockets of Disasters and Essential Resources for Schools

A significant aspect of educational inequality was put forward by Mtwesi (2016) who focused on the importance of educational inputs as opposed to educational outputs, which had succeeded in taking the attention away from grass root level challenges facing education. She revealed that the Social Profile of Youth 2009-2014 report made available by Statistics South Africa showed that there had been a staggering decrease in the number of Black African and Coloured students since the mid-1990s completing a bachelor's degree with less than 4% graduating from university. She acknowledged that though the issue of access to education had been significantly redressed using the matric outcomes as a benchmark for success, these scholarly end results, did not reflect the excellence and efficacy thereof.

She claimed that the focus should be transferred from unworthy outputs (economic accomplishments) to more important inputs, which in pedantic language alluded to existing school infrastructure, the number of written resources on hand and the proportion of students to educators. An example she cited was the lack of service delivery in respect of much needed educational resources, which was a landmark case of the Department of Basic Education's inability to provide students at government schools in the Limpopo province with textbooks after the introduction of a new curriculum in 2012. Despite the Supreme Court of Appeal's decree that the matter be remedied within a specified period, the problem still persisted throughout 2013-2014.

Mtwesi (2016) further explained that the first step in ensuring balanced and fair instruction to all was to make sure that there was adequate education, which she clarified as being one that delivered ample supplies. She contended that adequacy was a floor, which was the lowest degree of educational reserves that were required to achieve the affirmed objectives. She reiterated that the ideal would be for the Department of Basic Education (DBE) to offset the adverse effects of paucity endured by the previously disadvantaged, by providing supplementary reserves for less affluent centres of learning. To compound the problem, she indicated that despite the

department's guidelines in respect of the minimum norms and standards for public school infrastructure, a significantly large number of schools remained severely under-resourced. The Department of Education's National Education Infrastructure Management System's Report (2015) indicated that of the 23 589 public ordinary schools:

- 452 schools were without water supply and 4772 had an undependable water source
- 913 schools were without electricity and 2854 schools had an untrustworthy supply
- 128 schools were without ablution amenities and 10 419 schools still utilised pit latrine toilets
- 1547 schools were not fenced, and 58 others had undependable fencing
- 9966 schools were without sporting infrastructure
- 181 schools lacked communication facilities
- 18 150 schools were without libraries and 3287 schools that did have libraries were inadequately stocked
- 15 984 schools lacked computer centres
- 20 312 schools were without laboratory facilities.

The figure below puts the situation into perspective:

	Water	Electricity	Ablution Facilities	Fencing and Security	Sport Facilities	Communication Facilities	Library Facilities	Computer Centres	Laboratory Facilities
Not available (2015)	452	913	128	1547	9966	181	18150	15984	20312
Unreliable (2015)	4773	2854	10419	58					
Not Avialble (2011)	2402	3544	913				22938	19037	21021
Unreliable (2011)	2611	804	11450						

Source: Department of Basic Education (NEIMS Report)

Figure 2: Resources at schools (Mtwesi 2016)

She further asserted that to restore a basic modicum of equality to the majority of schools, the following needed to be put in place as a matter of urgency: there should be sufficient numbers of suitably trained and skilled educators, principals and other essential staff members in every school, every day; sufficient and accessible infrastructure for all students; appropriate instructional material for both students and teachers alike, and lastly, realistically manageable class sizes. These measures had been earmarked by the courts as being vital to the provision of a superior standard of instruction.

2.4.2.4 School choice and inequalities in post-apartheid South Africa

After 1994, the government instituted a series of reforms in education to redress the inequalities perpetuated by the apartheid regime. Little was it known that these very policies that were meant to restore the imbalances would cause even more inequities. Ndimande (2016) took a closer look at school choice which was a measure instituted by the new government to eradicate segregation in schools. Historically, the dogma of apartheid ostracised the bulk of Black people as their institutions of learning were grossly lacking essential finances. By giving Black parents the option of choosing the most suitable schools for their children, inequalities became further deepened as those

who could afford to, transferred to previously White only schools, leaving behind the impoverished.

According to the evidence gleaned by Ndimande, he reported that the majority of the parents that he interviewed were of the belief that better resourced learning institutions equated to a better quality of education, which was deficient in the township schools. He further asserted that school choice had blurred the vital need for the new regime to tackle the problem of insufficient resources that was prevalent in township schools.

Another important point raised by Ndimande was the issue of financial allocations meted out to all schools under the auspices of the new ruling party. He asserted that an equal distribution of funds to all schools was in essence grossly unfair, ironic though that might seem, since it failed to redress the poor funding of previously disadvantaged communities. Furthermore, previously White only schools continued to make great educational strides because of the high school fees they charged, innovative fundraising initiatives, as well as the huge monetary support they procured from the wealthy parents. These did not feature in the poor areas of the country where the majority of the inhabitants were struggling to survive with the bare necessities of life. These and other factors had contributed to many township schools being under-resourced, thus making them unappealing to the community that they served. Ndimande concluded by claiming that this deficiency in essential assets and supplies in township schools persisted in ensuring child under performance and indigence.

2.4.2.5 What international educational evaluations tell us about education quality in developing nations

Van der Berg (2018) examined what international educational evaluations tells us about education quality in developing nations. He indicated that such appraisals uncovered societal imbalances as socio-economic ranking had a methodological impact on academic objectives, but social inclines differed from country to country. School reserves alone could not justify the colossal performance variances evident between developing and developed nations. Large-scale productivity amendments needed to take place in classrooms and schools. He further posited that in spite of credible strides globally in access (as evaluated by years of formal instruction);

developing nations continued to face a huge dearth in learning (as evaluated in terms of intellectual proficiency). Scholastic achievement at any particular period and with any allocated input of financial and academic supplies was not rigid and absolute, as there appeared to be mammoth discrepancies in accomplishment even among affluent nations (Van der Berg, 2018).

In addition to this, Van der Berg claimed that in the area of economics, the correlation between socio-economic rank and explicit academic outcomes was known as the social gradient. There were sheer social gradients in cognitive outcomes within several developing nations (students from superior socio-economic strata significantly surpassed their indigent peers). South Africa's sharp incline was directly reflective of its legacy of disparity. Though the prevalence of steep social gradients was a global occurrence, none were as prominent as South Africa's. He reiterated that though a deficiency in much needed reserves played a major role in certain instances, policies were also required to streamline the more judicious use of resources catering to the needs of the indigent (Van der Berg, 2018).

2.4.2.6 Gauteng's education inequality is being addressed

According to Sekhonyane (2019), Gauteng province's education imbalance was being attended to, which meant that inequities continued to persist post-1994. Despite emerging as the top performing province in the 2018 matriculation results, critics were still expressing concerns over the controversial matter of inequality in schools, simply because some students felt that they were ill-equipped to face the challenges presented by tertiary education especially in relation to technological skills. These students had completed their education in the same country with the identical instructional programme but with institutions of learning with vastly differing educational reserves. Their higher education encounters will bring to the fore the adverse consequences of a disproportionate educational structure. This has sweeping repercussions that may also have an influence on their employment prospects. The inequitable dissemination of supplies was of immense uneasiness to the department. Educational organisations with a deficiency of resources are unable to source proficient educators. Libraries lack essential supplies and laboratories do

not have the proper equipment and materials to be fully functional (Sekhonyane, 2019).

In spite of the Gauteng department's intervention measures to tackle imbalance, by initiating the model of the smart classroom fitted with a smart board, the twinning system that utilises video links for cross teaching between adequately equipped schools and ill-equipped ones, and institutes of specialisation in the fields of art, engineering, nuclear technology and aviation, there is nonetheless a lack of data to indicate whether these strategies are actually redressing the challenge of educational inequality. However, the 2018 matric outcomes for the province indicate that these mediations are effective and will persist in producing desirable outcomes (Sekhonyane, 2019).

From the evidence gleaned pertaining to educational disparities within the South African context, it is clearly evident that inequality is a debilitating feature of public schools within the country. Lack of access to vital resources is very prevalent under normal circumstances. Since this research study was conducted in the midst of a global pandemic, which redefined what society perceived as normal, it became imperative to take a closer look at how Covid-19 would impact on schooling at large. How would physical resource deficits affect the way education is disseminated in the midst of a national health crisis?

2.5 COVID-19 DEVELOPMENTS

2.5.1 What is COVID-19?

The COVID-19 epidemic, also referred to as the coronavirus contagion, is triggered by a grave intense breathing condition, coronavirus 2 or SARS-CoV-2 (Wikipedia). The COVID-19 highly infectious disease has its early beginnings in the area of Wuhan in China during the latter part of 2019 allegedly caused by the locals feasting on bats. The worldwide health watchdog, the World Health Organisation (WHO), affirmed the outburst to be a Public Health Emergency of International Concern on 30 January 2020, and a pandemic on 11 March 2020. As of 16 June 2020, more than eight million

instances of COVID-19 had been documented in more than 188 countries and territories globally (Wikipedia).

This unanticipated incurable disease has revolutionised the way people live, work and educate themselves in largely unprecedented ways. From the upper elite echelons of society to the disenfranchised practically living in the gutters around the world, normal became an unfamiliar and unenforceable word. The wildfire spread of the disease has led to worldwide societal as well as fiscal disorder and chaos. There was widespread suspensions or revocations of athletic, spiritual, governmental, and community happenings, extensive scarcity of essential goods and on a more positive note, a decline in the release of contaminants and greenhouse fumes. Places of learning, both primary, secondary and tertiary institutes, were compelled to close their doors either on a countrywide or local basis in over 172 countries, thereby affecting an estimated 98.5% of the planet's s learner populace (Wikipedia).

2.5.2 Coping with COVID-19

Uncertain and dangerous times call for extra caution and care. Robert Kennedy (2020) suggested the following ways to stay safe:

- An unwell child should be kept home, away from school and general public spaces
- Avoid the shaking of hands with unknown people, rather do elbow butts or if you are not comfortable with that, avoid touching another person altogether
- Avoid hugging people you do not know, rather greet people verbally from a distance
- Stay away from crowded scenarios like in lifts and public modes of commute.
- Frequent hand washing must become a daily habit, the use of an alcohol-based hand sanitiser is also highly recommended
- Social distancing is essential, that is a distance of about 1.5m from others, especially those who are coughing or sneezing since the COVID-19 virus proliferates by dispersions of droplets in the air and on surfaces like railings, handles, buttons, for example

- It is highly recommended that one uses their elbow to press buttons in public places.

2.5.3 COVID-19 timeline influencing education

The below COVID-19 timelines have affected or influenced education (Wikipedia, 2020):

- **26 January:** China, where the virus broke out, became the first country to take precautions to contain the spread of the virus by shutting down all institutes of learning
- **March:** The United Nations Educational, Scientific and Cultural Organisation (UNESCO) disclosed the first worldwide numbers on the closing of schools. The report indicated that 22 countries on three continents had put precautionary programmes into place, inclusive of the shutting down of places of learning, thereby affecting the masses on an unprecedented level
- **5 March:** The bulk of students that were impacted on by the virus were from China (233 million), Japan (16.5 million) and Iran (14.5 million)
- **10 March:** One in five learners globally was away from school because of the pandemic and one in four students were not attending tertiary institutes
- **13-16 March:** Countrywide regimes in 49 countries declared the shutting down of schools on 13 March. By 16 March, the number increased to 73 countries
- **19 March:** A total of 50% of learners around the world were not attending schools in almost 102 countries
- **20 March:** More than 70% of the world's students in 124 countries were out of school
- **27 March:** Almost 90% of learners around the globe were staying home
- **29 March:** Over 1.5 billion children and other learners experienced disruptions in their schooling
- **Mid-April:** A total of 1.725 billion students worldwide had been influenced by the shutting down of schools and higher education institutions in response to the fatal virus. 192 countries closed their schools and so doing impacted an estimated 99% of the global learner populace

- As of **7 June 2020**, 134 nations are presently enforcing countrywide closures and 38 are instituting local shutdowns, affecting approximately 98.5% of the world's learner populace. Schools in 39 countries are presently open.

2.5.4 The impact of COVID-19 on education

The COVID-19 pandemic has affected the acquisition and dissemination of knowledge and learning all around the world, which has led to the near complete shutting down of schools, colleges and universities. Many regimes globally have provisionally closed institutes of learning as a strategy to help curb the circulation of COVID-19. As of 7 June 2020, an estimated 1.725 billion students were affected as a direct result of schools being closed in response to the pandemic.

The shutting down of schools has had an influence on not only scholars, teachers, and households but has also had far-reaching fiscal and cultural consequences. The temporary halt on normal learning processes, as a safety precaution against the spread of the virus, has brought several community and financial problems to the fore – inclusive of tuition fees owed by students, technological means of acquiring knowledge, uncertainties about nourishment, and vagrancy, as well as being able to gain admittance to childcare, health care, shelter, Internet and incapacity services. The group affected the most was the underprivileged, which has resulted in a disruption in learning, inadequate nutrition, child minding issues, and the subsequent financial burden to families who were unemployed (Wikipedia).

In an attempt to address the closure of schools UNESCO, suggested using distance learning measures and open academic applications and platforms that institutes of learning and educators could utilise to access students remotely and restrict the interruption of schooling (Wikipedia). In South Africa the majority of previously disadvantaged areas, had a significant number of under resourced schools. With the new pandemic protocols mandated by the Minister of Education, it was going to be a mammoth task to align these impoverished schools with the national plan. Many schools simply would not be able to implement the new plan simply because they lack the essentials necessary for such a roll out to be effective. Going out into the field would bring the real situation on the ground to the forefront.

2.5.5 Global adaptations to COVID-19

2.5.5.1 The Kingdom of Saudi Arabia

The researcher was a teacher at a private international school in the Kingdom of Saudi Arabia (KSA) when COVID-19 made its impact felt in her part of the world. On 8 March 2020, only a handful of students came to school. She was puzzled because she did not realise at that time what was going on. The staff were informed by the school management that the government had mandated a compulsory closure of all schools as a precautionary measure to curb the spread of the coronavirus pandemic. All teaching and learning had to be conducted digitally. She was apprehensive to say the least. Being technologically challenged is her one weakness, which she was reluctantly working on, and now this.

On 9 March 2020, every student had a profile and access to Microsoft Teams and so did the teachers. The staff were given a two-hour training session on Microsoft Teams and how to present an online class. Her mind was reeling. She left the training session feeling totally ill-equipped to deal with this mammoth task that was placed on her shoulders. She had to record a 45-minute Mathematics and Language Arts (English) lesson daily and a science lesson twice a week. Overall, she had to record and upload 12 lessons a week. There had to be a daily live chat session of an hour in duration for students to ask questions and get clarity on any content that they did not understand. The time slot for her session was 13h00 – 14h00. She was drowning. She felt like throwing in the towel.

The school went online from 10 March 2020. Things were happening so fast. The entire school was disinfected from top to bottom. The teachers were given headsets and tasked to work from home. There were numerous challenges at the outset. It was even worse for the parents and students. At least the teachers had received some training, minimal though it was, whereas the students had received none. Her first recordings were disastrous. Students complained that there was no sound, and then when she managed to figure out how to ensure that the audio feature was on, the volume was too low. Her stress levels hit the roof, as she was fully aware that she would have parents and other siblings listening to her lessons too. It took hours to plan

the lessons, source suitable digital content and then record the lessons. Recorded lessons had to be uploaded before 08h00 every morning. The researcher had never worked so hard in her entire teaching career before. Then there was the challenge of the scheduled assessments. Every week students had to submit one piece of work for Science and Mathematics and two pieces of work for Language Arts (English).

Receiving and assessing the tasks took on a nightmarish quality. Each student was submitting four pieces of work a week. They had to complete the work then scan and email it to the teacher. She had to keep a weekly record of who had submitted and who did not. Most of the time the assessments were not submitted on time. There were students submitting week two's work in week three and so forth. Then there was the grading of the assessment itself. Once she had received it, she had to download the work and then evaluate the written responses, which came with its own set of challenges. The writing was in some cases illegible, or it was written in pencil. After all, these students were only in Grade 3. The names of those who did not submit prescribed assessments had to be submitted to the guidance counsellor so that she could follow it up.

As time progressed via trial and error, the researcher slowly succeeded in presenting worthy recorded lessons. She learnt how to share her screen when recording so that students could view the PowerPoint presentation or the YouTube video that was a part of the lesson. She also created folders for the submitted work so that she could keep track of students' work. Just when the researcher thought to herself that she was making strides, the teachers were told to convert their original hard copy final examinations into digital format. They were directed to a few video tutorials and told to get on board. In the two weeks before the final examinations, student's classroom tasks had to be done digitally via Microsoft Forms so that students would have had sufficient practice on taking an online test in preparation for the examinations. After struggling a bit, the researcher finally got the hang of it. It was simple yet effective and the advantage was that the computer marked the responses. To perfect this new tool, the researcher drew up 15 online assessments (three for each subject) which she used during the week that was set aside for revision. The students thoroughly enjoyed it and so did she. The sessions were interactive and fun. Previously, the hour seemed to drag; however, now it was not enough.

The researcher was fortunate that in a country like the KSA, switching over to digital learning and online teaching could be done immediately. The school as well as the community it served had the resources and knowledge to make this transition quickly and smoothly. Students had access to iPads, laptops, cellular phones and the Internet at home. Their Information Technology classes at school had ensured that they were adept at using a computer. Furthermore, their parents' computer literacy levels also contributed to the success of this new way of teaching and learning. The researcher admits that she has emerged from this situation a much better teacher who was now eager to embrace the digital learning environment. However, the same could not be said for those teachers and students who attended public schools.

2.5.5.2 Alaska

In his article *Online school during COVID-19: It's about student learning,* Michael Johnson (2020), the Education Commissioner in Alaska acknowledges how disruptive this pandemic has been, especially in the education sector. The Alaska Department of Education and Early Development publicised the Alaska State-wide Virtual School. The primary aim of this virtual school was to make elective subject matter available to teachers and learners, as a support mechanism in their adjustment to online teaching and learning. This new platform was offered at no cost to all learners. Educators could utilise content from the virtual school for a section of their learners' coursework. Furthermore, parents who required additional information and subject matter content could access supplementary material for their children in different grades from the virtual school at no extra cost.

In addition to the Alaska Virtual School, Alaska worked in partnership with the Florida Department of Education to teach 54 educators to deliver subject matter content and involve learners by means of best practices for online teaching and distance learning. As it was not clear when the pandemic will ease off, Johnson (2020) advocates being ready for possible state-wide or regional closures at the beginning of the school academic year in August 2020. Johnson (2020) further indicates that the reality is that certain communities may not be open to allowing teachers from outside to return to their local schools. Until a vaccine has been developed for COVID-19, people will not

take the risk of exposing their children to an unsafe teaching and learning environment. Teachers must therefore be prepared for remote teaching (Johnson, 2020).

Over and above the several digital resources that are available, the Alaska Department of Education has collaborated with Apple and has recently bought 500 iPads that will be preloaded with educational content and tasks. These devices will be disseminated to kindergarten through third grade learners in underprivileged communities that have no Internet access or where there is no locally based educator as a result of travel limitations linked to COVID-19. Through telephone calls and conventional mail, educators can provide support to learners using iPads (Johnson, 2020).

2.5.6 South African schools and COVID-19

The media is in a frenzy regarding government's roll out plan to put into place some sort of normalcy in the educational sector by gradually phasing in various grades to resume attending schools again. The following articles shed some light on the matter.

2.5.6.1 Unions slam Motshekga's school plan

The Department of Basic Education's decree to have students in Grades 7 and 12 start attending classes again as of 1 June 2020 was not looked upon favourably by the country's unions. The mandate to go back to school has resulted in differentiated public viewpoints. While certain individuals applauded the department's effort to salvage whatever it could of the 2020 academic year, others lambasted the stratagem as they felt that the plan was rash and unsafe. The unfavourable icy winter months and South Africa's COVID-19 caseload expectation of hitting a high in September 2020, has left anxious educators, parents and learners fearing the worst (Daniel, 2020).

Most of the country's schools are scrambling to ensure, as per government's directive, that they have essential health and safety procedures in place before they can open their doors to learners again. The Minister of Basic Education, Angie Motshekga, has made a valiant effort to get the ball rolling in this regard. Local departments have been

tasked to confirm that classrooms are fitted out with sanitisation areas and Personal Protective Equipment (PPE) (Daniel, 2020).

The South African Democratic Teachers' Union (SADTU) have claimed that several provinces are not ready to re-open as they fall short of government's prescribed conditions. The General Secretary of SADTU, Maluleke, had the following to report based on provincial surveys: *"The survey tells us that seven provinces are far from being ready in terms of ablution facilities in terms of water. Out of the 3400 schools, there is still about 64% of those that do not have water. Out of all the schools that responded to the survey, 87% say they do not have ablution facilities.* Maluleke also revealed that only schools in the Western Cape and Gauteng were in a state of readiness to welcome learners back on 1 June 2020, but he expressed his concern about the plan for the delivery of masks not being adhered to. The Minister addressed this concern by stating that sanitisers and masks will be delivered to the schools closer to the time to prevent these essentials from being stolen (Daniel, 2020).

SADTU reiterated that the results from the survey have revealed explicitly that South Africa's schooling system would require at least two months to be in an acceptable condition to receive the students once again. He expostulated further that while institutions in urban areas were suitably equipped and could meet government's requirements, learning amenities in disadvantaged communities needed more time to get up to speed and standard (Daniel, 2020).

2.5.6.2 DBE: 95% of schools to open on 8 June 2020

The DBE indicated that 95% of schools were in a position to re-open on 8 June 2020 for Grades 7 and 12. The 5% that were unable to open were schools in the rural areas that lacked water and suitable sanitation (Macupe, 2020). At a media briefing held on 7 June 2020, the various MECs had to provide feedback to the Minister of Basic Education, Angie Motshekga, on how ready their provinces were to re-open. Unfortunately, challenges were still experienced by several schools. The technical report presented by Director General (DG) Mweli indicated that some provinces still did not know how many educators and non-teaching staff had comorbidities, neither were they aware of the number of educators and staff who had received training to

function in a COVID-19 situation. Some provinces also did not have information regarding the number of institutions that had been supplied with PPE for students (Macupe, 2020).

The DG also indicated that 1960 schools needed emergency sanitation, which was being addressed by the dispatch of a minimum of two portable lavatories to each of these schools. In the Eastern Cape thus far, 1904 of the 5064 schools in the province had received fabric masks for students. In Mpumalanga, only 18 out 435 schools that did not have water, had received water. The MEC for the province stated that water tanks had been dispatched to the province, but the remoteness of some of the locations was an obstacle to these tanks finding their way to the schools (Macupe, 2020). Some schools had also not appointed COVID-19 temperature screeners. School re-opening was postponed from 1 June 2020 to 8 June 2020 because certain institutions did not have COVID-19 essentials in place. The Minister also indicated that for the 5% of schools that were not ready to re-open, alternative measures would be planned, which included accommodating those students at nearby institutions or housing them in special learning camps (Macupe, 2020).

2.5.7 To re-open or not to re-open? School readiness during COVID-19

The researcher believes that we are living in unprecedented times, where global changes have to be made for all humans to be able to cope and adapt to new ways of doing things. Some communities are able to make the transition more easily as compared to others – simply because they are better equipped in terms of resources as well as possessing the capacity to deal with change in a more efficient manner. Different communities are back at the drawing board, amending national laws and re-writing essential policies. Even on a global level, with travelling to different countries, new guidelines had to be drawn up to ensure the safety of travellers. The most pressing issue on a global scale is the loss of invaluable instruction time.

There is no doubt that all stakeholders are concerned about schools re-opening, especially parents. There is a disease on the loose, with the death toll from this virus on an upward spiral. How safe will our children be at schools with children coming from all walks of life? Do the very young understand the implications of following the

rules about frequent hand washing and social distancing? As evidenced above, communities that are more affluent were able to tackle the problems head on and even if the pandemic persists, they will be able to conduct quality lessons online. Although for the more indigent nations of the world, a need to return to schools is high on the priority list, the question is how will schools know how and when to open their doors again? The Centres for Disease Control (CDC) in the United States of America advocate the use of the following school readiness instrument so that administrators can ascertain whether a community is ready to resume normal schooling:

Table 1: Schools during the COVID-19 pandemic

SCHOOLS DURING THE COVID-19 PANDEMIC		
ASPECT	**YES**	**NO**
Protocol 1: Should you consider opening?		
Will reopening be in line with relevant national and provincial policies?		
Is the school prepared to safeguard learners and staff at higher risk for critical illness?		
Are you able to examine learners and staff when they arrive for warning signs and history of exposure?		
If any of the above is **NO, DO NOT OPEN**. If **ALL** are **YES**, **PROCEED TO THE NEXT PHASE**.		
Protocol 2: Are suggested health and safety measures in place?		
Advocate healthy sanitation routines such as regular washing of hands and staff members adorning a cloth facial covering, as feasible.		
Intensify cleaning, decontamination, and ventilation.		
Promote social distancing by means of increased spacing, small groups and restricted mingling among groups, if practically possible.		
Ensure that all staff members receive the necessary training on health and safety protocols.		
If any of the above is **NO**, **FIRST MEET SAFEGUARDS.** If **ALL** are **YES**, **PROCEED TO THE NEXT PHASE**.		
Protocol 3: Is ongoing monitoring in place?		
Develop and put into place procedures to check for signs and symptoms of learners and staff on a daily basis upon entering the premises, if possible.		
Urge any individual who is unwell to remain at home.		
ASPECT	**YES**	**NO**
What measures will be in place if learners or employees fall ill?		
Frequently communicate and supervise incidents with local authorities, staff and families with regard to cases, exposures, and updates to policies and procedures.		
Monitor learner and staff absences and ensure that flexible leave policies and practices are in place.		
Be ready to consult with the local health authorities if there are cases in the facility or a rise in cases in the local area.		
If any of the above is **NO**, **MEET SAFETY STANDARDS FIRST**. If **ALL** are **YES**, **OPEN AND MONITOR**.		

Source: Centres for Disease Control

2.6 LEGISLATION GOVERNING SCHOOL RESOURCING

2.6.1 Bills and White papers

In 1995, the government introduced the White Paper on Education and Training. The function of this document was to propose that monetary allocation to schools be equitable and transparent so that past historical inequalities based on ethnic diversity and region could be eradicated and ensure higher standards. The paper also makes a commitment to the provision of gratis and mandatory general education (Sayed, Kanjee & Nkomo, 2013:387). In 1996, the "Education White Paper 2: The organisation, governance and funding of schools" came into being. The purpose of this document was to put forth a comprehensible national pattern of school financing in order to redress the imbalances in education access and provision. The paper also suggested that schools be funded in part by the state and in part by the charging of school fees (Sayed, Kanjee & Nkomo, 2013:387). In 2005, the Education Laws Amendment Bill B23-2005 came into being. The main aim of this document was to make available a system for establishing norms and standards for school funding by means of quintiles (Sayed, Kanjee & Nkomo, 2013:387).

2.6.2 Acts

In 1996, the South African Schools Act (No. 84 of 1996) was promulgated. The purpose of this act was to make provision for the financing of schools by the state on an equitable basis. The Act also mandated the state to fund schools from public funds on an equal basis in order to guarantee the proper rights of learners to education and to redress the past inequalities in education provision (Sayed, Kanjee & Nkomo, 2013:388). In 2005, the Education Laws Amendment Act (No. 24 of 2005) was promulgated. The purpose of this Act was to provide a process to establish norms and standards for school funding by means of quintiles (Sayed, Kanjee & Nkomo, 2013:388). In 2007, the Education Laws Amendment Act (No. 31 of 2007) was promulgated. The main aim of this Act was to provide for minimum norms and standards for infrastructure and capacity in public schools. The norms mandated that the minister prescribe by regulation minimum uniform norms and standards for school infrastructure, and capacity of a school in terms of number of learners a school can

admit and the provision of learning and teaching support material (Sayed, Kanjee & Nkomo, 2013:388).

2.6.3 Amendments due to COVID-19

In the Government Gazette of 18 March 2020, amendments had to be made to the Disaster Management Act 2002 regulations due to the worldwide COVID-19 pandemic.

The following key concepts had to be included:

- "**Adequate space**" – means not more than one person per square metre of floor space
- "**COVID-19**" – means the novel Coronavirus (2019-nCov) which is an infectious disease caused by a virus, which emerged during 2019 and was declared a global pandemic by the World Health organisation during the year 2020 that has previously not been scientifically identified in humans
- "**Isolation"** – means separating a sick individual with a contagious disease from healthy individuals without that contagious disease in such a manner as to prevent the spread of infection or contamination
- "**Quarantine"** – means separating asymptomatic individuals potentially exposed to a disease from non-exposed individuals in such a manner as to prevent the possible spread of infection or contamination
- "**School**" – means a school as defined in section 1 of the South African Schools Act, 1984 (Act No. 84 of 1996)

The following amendment pertaining to schools was added:

- Dr Nkosazana Dlamini Zuma, Minister of Cooperative Governance and Traditional Affairs, announced the closure of schools and partial care facilities – schools and partial care facilities must be closed by 18 March 2020 until 15 April 2020, the period may be extended for the duration of the national state of disaster by the responsible Cabinet Minister

- Angie Motshekga, Minister of Basic Education, announced the amended 2020 school calendar for public schools in the National Education Policy Act, 1996 (Act No. 27 of 1996). The amendments were as follows:
    - School days: 8 June – 15 December 2020
    - Public holidays: 16 June, 9 & 10 August (11 August – revised school holiday), 24 September (25, 28, 29, 30 – revised school holiday)
- In the Government Gazette of 1 June 2020, the following recommended scheduled phasing in of grades was stipulated as a guideline for the re-opening of the country's schools:

Table 2: Proposed re-opening schedule for schools

Grades	**Date of re-opening**
7, 12	8 June 2020
1, 2, 3, 6, 10, 11	6 July 2020
4, 5, 8, 9	3 August 2020

The following guidelines were also stipulated:

A school may be permitted to deviate from the phased in return to school in respect of specific grades or dates, as contemplated in sub-direction, provided that such school:

- Complies with the minimum health, safety and social distancing measures and requirements on COVID-19, referred to in the Directions and Regulations
- Applies prior to implementing such deviation, on a form that substantially corresponds with Annexure B, to the Head of Department responsible for education in a province, for approval of such deviation
- The Minister, Head of Department, or a delegated official or institution reserves the right to monitor compliance with the conditions set for the re-opening and management of schools
- The education department must arrange with a school as contemplated in sub-direction (3), for learners to receive ongoing teaching and learning to ensure that education continues in accordance with the curriculum and that a learner is not disadvantaged by the school not re-opening.

- Schools with large enough facilities to comply with health, safety, and social distancing requirements do not have to change their traditional and daily timetable models, and may continue to operate in accordance with those timetable models (provided that they continue to ensure compliance with the minimum health, safety, and social distancing measures and requirements on COVID-19 as set out in the Directions and Regulations)
- A certificate for learners attending school within their metropolitan area or district (Annexure A) must be completed by the principal or a person authorised by the principal.

2.7 GOVERNMENT EXPENDITURE ON EDUCATION IN SOUTH AFRICA

According to the 2013-2014 Statistics South Africa findings, government projected spending on education rose significantly from R229 426 billion in 2012-2013 to a mega R249 200 billion, an increase of R19 774 billion. This amount comprised 19% of the total budget for that fiscal period. Of the amount allocated to education, R169 119 billion (68%) was to be used for the compensation of employees and R51 232 billion (21%) was to be used for the purchase of goods and services. The facts and figures indicated that education, which comprised the second highest chunk of the budget for the country, was of prime importance but the question that arises is: does the government see significant returns on its investment? Apparently not.

According to the Community Survey Report on Education Enrolment and Achievement (2016) released by Statistics South Africa, the standard of instruction in South Africa continued to persist in being below expectation, especially in the previously marginalised regions. The report indicated that centres of learning did not even fulfil the essential instructional infrastructure prerequisites such as access to laboratories, libraries, Internet connections and suitably trained and proficient teachers. It comes as no surprise then that these students encounter learning deficiencies that result in an increased number of learners repeating grades or quitting school altogether. The financial resources are there, but what is at the heart of the crisis?

The National Development Plan (NDP) is a rollout plan that was devised to improve the education situation in the country. The Medium-Term Strategic Framework (MTFS) (2014-2019) projections are inclusive of the accomplishment of the following by 2017:

- All children between the ages of 7 and 18 should be in school and 65% of learners should be in grades suitable for their age
- 60% of each cohort should receive either NSC or an alternative vocational or further education and training qualification
- 75% of learners in Grades 3, 6 and 9 tested through the ANA should attain above 50% in literacy and numeracy
- The number of learners qualifying for university entrance should be 250 000
- The number of students registered at university to surge to 1,07 million
- The number of students registered at TVET colleges to rise to 1,238 million
- 24 000 artisans must be produced annually
- 20 000 teachers must be produced yearly
- 3000 PhD graduates must be produced
- 57 000 graduates in engineering must be produced
- 45 000 human and animal health graduates must be produced
- 36 000 natural and physical sciences graduates must be produced.

In addition to the above-mentioned plan to clearly demarcate the educational priorities for the country, the NDP, according to the Community Survey Report, has fixed widespread admission to Early Childhood Development (ECD) programmes as one of the drivers to attain long-standing improvement in the standard of instruction nationally. The report further cites (Republic of South Africa, 2015) that in December 2015 the government sanctioned the National Integrated Policy for ECD. The policy acknowledged that the prospect for early learning was not generally obtainable and needed to be put into place by 2030 to extend to every child in South Africa, particularly those who were residing in historically omitted sections, children in rural and urban areas that were inadequately catered for, children living in paucity and children that are physically challenged.

Another significant aspect raised in the Community Survey Report was the issue of improving education quality across all fronts. Two important goals of the Sustainable Development Goals and Education 2030 agenda addressed this issue head on:

- Construct and enhance instruction amenities that are child, disability and gender sensitive and make available secure, non-violent, inclusive and efficient learning environments for everyone
- By 2030, significantly raise the amount of suitably trained and proficient educators.

Despite government's optimistic plans and strategies to improve education for all South Africans, the General Household Survey Report (2017) released by Statistics South Africa indicates a dismal state of affairs. Learners from the ages of 7 to 18 provided the following main reasons for not attending an academic institution: unable to pay school fees (21 [8%]); poor scholastic achievement (18 [9%]); domestic obligations (9 [7%]); learning is futile (5 [9%]), and inability to get to school (0 [9%]). The problems identified are summarised in the table below.

Table 3: Nature of the problems experienced by all learners who attended public schools per province

Problems experienced in public school	Province (Per cent)									
	WC	EC	NC	FS	KZN	NW	GP	MP	LP	SA
Lack of books	1,2	2,9	2,7	4,1	4,1	2,7	2,6	6,3	8,7	4,0
Classes too large	7,7	2,6	3,8	2,4	2,5	5,2	4,5	5,3	1,1	3,6
Fees too high	4,2	3,0	0,6	4,8	1,6	2,5	4,3	4,0	0,7	2,8
Facilities bad	2,4	4,2	1,2	3,0	2,7	4,3	1,9	3,4	0,5	2,6
Lack of teachers	1,8	6,1	0,8	1,6	1,3	2,8	1,5	1,9	0,5	2,1
Teachers absenteeism	1,0	0,8	1,1	0,9	1,1	2,9	2,3	0,6	0,5	1,3
Poor quality of teaching	1,3	0,6	1,5	1,1	1,1	1,7	2,3	1,2	1,5	1,4
Teachers striking	0,5	0,3	0,5	0,6	0,9	1,2	1,2	2,2	1,4	1,0

Source: StatsSA General Household Survey Report of 2017

What is glaringly obvious from the above table is that there is an inequitable distribution of resources across all provinces. Looking at current developments in South African education, continual but inadequate advancements have been made. Despite the

increased access to education since 1994, with particular reference to Black Africans, deeply entrenched disparities between the various different ethnicities persist.

The Community Survey Report (2017) indicates that the typical South African household outlay on education as revealed by the Living Conditions Survey (LCS) 2014-2015 is as follows: Black African R1, 656.00; Coloured R3, 236.00; Indian/Asian R6,731.00, and White R8,069.00. When comparing these staggering differences, is it no wonder then that the report cites truth on the effect of these inequalities. “Wage income accounts for 70% of income in South Africa and labour income accounts for 85% of inequality” (Leibbrandt et al: 2010). Thus, income, poverty and inequality are mostly due to inequality in qualifications and skills. Despite all of these educational setbacks, the government continues to plough much needed financial assistance into the educational sector, as indicated by the South African National Budget for the 2018-2019 fiscal year.

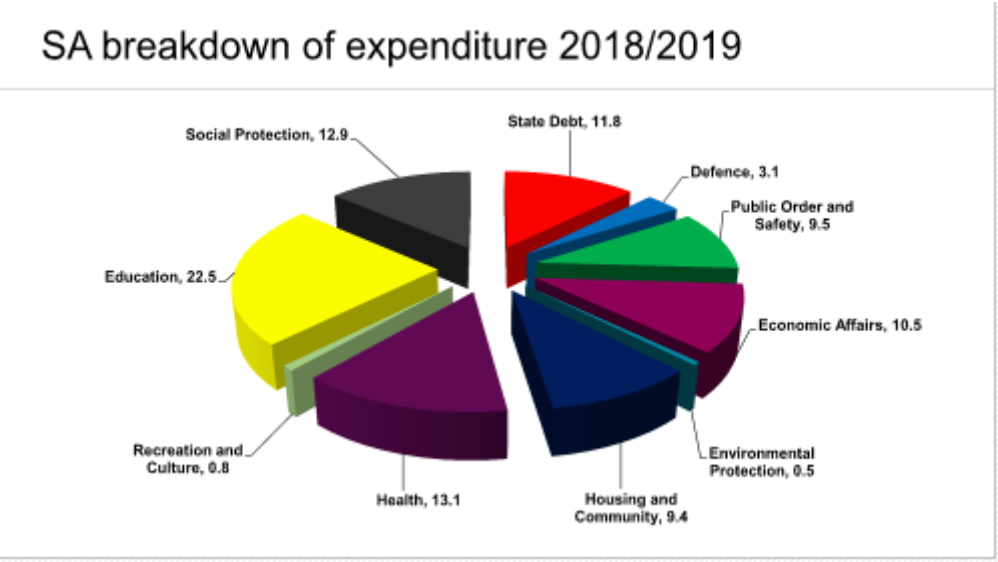

Figure 3: SA breakdown of expenditure 2018/2019 (STANLIB South African National Budget 2018-2019)

From the above, one can clearly see that education has been allocated the largest portion of the budget.

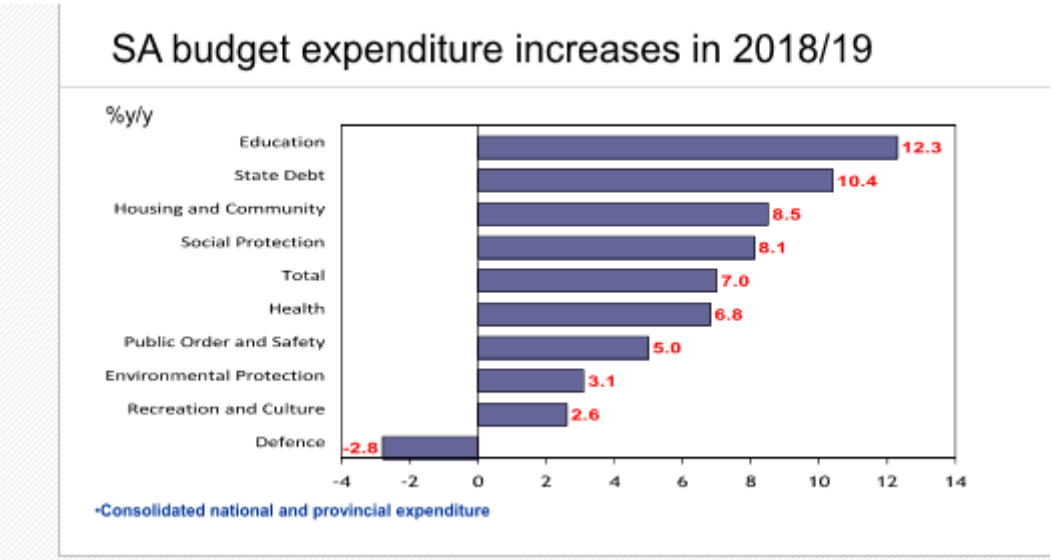

Figure 4: SA budget expenditure increases in 2018/19 (STANLIB South African National Budget 2018-2019)

Once again, it is evident from the findings provided above that education continues to claim a significant slice of the country's budget. Whether the funds will be used judiciously, or the standard of education improves; only time will tell.

2.7.1 The impact of COVID-19 on the education budget

The COVID-19 pandemic has wreaked havoc on economies globally. Governments worldwide have had to come up with strategies to improve the situation across all sectors for the benefit of its country's citizens. South Africa, too, had to go back, re-evaluate its financial position, and make amendments to its budget to rescue the economy. However, the expectations are contrary to what most people believed would happen. Daniel (2020) reports that instead of increasing the budget for education, it has been decreased by a staggering R5.2 billion (R2.1 billion will be slashed from Basic Education, R1.7 billion from Higher Education, and R1.4 billion from Science and Innovation). The country's official opposition party, the Democratic Alliance (DA), said:

"During this pandemic, education should be an area which receives additional funding rather than having its funding slashed. There have been multiple new expenses involved in getting schools, universities and colleges re-started in times of a pandemic and these will continue" (Daniel, 2020),

The researcher is of the view that the DA's concerns are suitably justified. The education system in South Africa was already in a crisis state before the pandemic. Reports in the media, as well as the literature review, indicate inequities that have not been addressed in decades. With the onset of this new challenge that requires specific safety and health protocols, those inequities of the past cannot be redressed. More money will be required in education to tackle these problems – both from the past and the present. Bozzoli and Marchesi, the Shadow Ministers of Education, indicated that reducing vital funding for education will have the following dire ramifications: existing programmes will be destabilised, overcrowding in classrooms will occur, educators workloads will increase as no new staff will be employed, the urgent need for new classrooms will be overlooked, students and universities will be debilitated, and postgraduate students will be negatively impacted as a result of insufficient funds for critical research (Daniel, 2020).

2.8 CONCLUSION

Firstly, in respect of educational inequality within developed nations, it would appear to be as pronounced as the South African context if not more so. The contributing factors are socio-economic status, family background, ethnicity, the school curriculum/process, and educational resources. The educational inequalities within the schools have an impact on the following components: teaching (with the "better" students moving to elite schools, teachers are left with students who do not really want to be there); learning (so called "sink" schools are not highly regarded by the communities they serve nor the authorities); national outcomes (drop-out rates are significantly high and pass rates are low), and lastly, those students that choose to drop out of the system are precluded from entering any form of higher education. They are subsequently forced to take on low paying jobs. In this way, educational inequality leads to income inequality, which has an impact on the country as a whole. Is it not surprising then that these first world countries have a considerably large pool of skilled migrants from around the globe?

Secondly, in respect of South Africa, the issues are very similar when it comes to educational inequalities. In-classroom factors, in-school factors and out of school

components contribute to the educational crisis in South Africa. Socio-economic status, ethnicity and educational resources affect the quality of education, which is evident in national outcomes like the matriculation examinations and standardised numeracy and literacy tests.

Thirdly, Bills, White Papers and Acts demarcate exactly how schools should be resourced with the emphasis being on redressing past inequalities perpetuated by the apartheid regime. These guidelines are precise and are continually being amended to ensure that the goals set are realistically attainable and applicable to the South African context. Policymakers scrutinise the situation on the ground and put measures that are more effective into place. The government also provides the finances necessary to ensure that schools and other spheres of education receive all the resources necessary to be fully functional. Therefore, what exactly are the obstacles that are preventing the country's vision of equal education for all coming to fruition?

In the following chapter, field work will be undertaken at the identified schools in the area. An observation will be made of the various resources at the schools. Apart from documents being analysed, focus group and individual interviews will be conducted to ascertain the impact of the school's physical resources on teaching and learning. From the literature reviewed, it would appear that changes are taking place at schools but the question that begs an answer is whether it is enough to get South Africa up and running to cope with international demands and trends. If not, why not and what can be done to make schooling a lucrative and enjoyable experience for all of South Africa's children.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The literature reviewed on countries abroad and South Africa has shed light on the phenomenon of educational inequality. Preliminary research has revealed that the common factor prevalent in first world countries (USA, UK and Ireland) and developing nations (Malaysia, Pakistan and South Africa) was the poor socio-economic status of students who were forced by financial circumstances to attend public schools. In most instances, these schools were poorly resourced in some way or another. What the literature review has revealed most explicitly is that educational inequality is a global phenomenon. The question was how did educational inequality manifest in South African schools, especially in the Highveld Ridge East Circuit of Mpumalanga in terms of access to physical resources? This research study aimed to uncover factors that contributed to educational disparities when it came to material reserves, and the impact of aforementioned inequities on teaching and learning. This chapter deals with the outlined research methodology, encompassing the research paradigm, design, research participants, data collection processes, data analysis and ethical considerations, which will serve to pave the way for this investigation to unfold.

3.2 RATIONALE FOR EMPIRICAL RESEARCH

As a South African by birth, the researcher was familiar with the turbulent history of the country, which could be held accountable for the gaping chasms across various sectors of the local populace. Since 1994, attempts had been made by the newly elected democratic government to bridge the gap to redress some of the inequalities of the past. This was evident in increased access to schools and more employment opportunities for previously marginalised groups. Although the government's efforts were commendable, the educational sector still appeared to be lacking in terms of resources at schools. From reports in the media to a cursory observation of the schools in the area, one could clearly see that despite government interventions and national policies, inequalities continued to exist 26 years after democracy.

To ascertain how inequality manifested in a sub-section of South African schools in the Mpumalanga province, it was necessary to physically go out into the field (the

schools) to investigate the phenomenon of educational inequality with a special focus on access to physical resources. The aspects under scrutiny were the following: physical infrastructure, as well as academic and human resources.

If there was evidence of inequality, in what areas did it come across? What was the impact on teaching and learning? The main aim of this investigation was to identify areas of inequality in a sub-section of South African schools and suggest ways in which these inequities could be overcome. Furthermore, a literature search on the issue of educational inequality in schools in the Mpumalanga province revealed a gap as no study had thus far addressed this issue in this particular locale. The studies that had been undertaken in this province encompassed part of the topic and were primarily conducted in the rural areas.

3.3 RESEARCH DESIGN

A research design is a plan or strategy that moves from the underlying philosophical assumptions to specifying the selection of participants, the data gathering methods to be used and the data analysis to be done (Maree, Creswell, Ebersohn, Eloff, Ferreira, Ivankova, Jansen, Niewenhuis, Pietersen & Clark, 2016:72). This study entailed exploring the phenomenon under question in its naturally occurring setting so that the real situation on the ground could be reported on using a descriptive method. Using this type of qualitative research design, provided answers to the research questions (Maree et al., 2016:53). Utilising a qualitative research design, ensured that interaction could take place with participants in real-life milieus so that the phenomenon under question could be put under the spotlight, dissected and made sense of. In this way, the situation on the ground was given meaning.

3.3.1 Research paradigm

From a personal perspective, researching the phenomenon of inequality within schools in the identified area took on an ontological slant, as the researcher was a subjective entity dealing with other subjective entities who in their own right had their own particular perception of reality. The aim was ultimately to navigate towards the true state of affairs as closely as possible despite these apparent limitations.

Interpretivism was the cornerstone of this investigation, as according to Maree et al., "it emphasises the ability of the individual to construct meaning." Furthermore, the interpretivist point of view was based on the following suppositions: human life can only be understood from within, social life is a distinctly human product, the human mind is the purposive source or origin of meaning, human behaviour is affected by knowledge of the social world and the social world does not "exist" independently of human knowledge (Maree et al., 2016:61-62). The ultimate aim of interpretivist research is to offer a perspective of a situation and to analyse the situation under study to provide insight into the way in which a particular group of people make sense of their situation or the phenomena they encounter (Maree et al., 2016:62).

3.3.2 Research approach

A qualitative research approach was utilised to conduct this study. According to Bryman, Bell, Hirschsohn, Dos Santos, Du Toit, Masenge, Van Aardt and Wagner (2014), qualitative research is the collection and analysis of primarily non-numerical data (words, pictures and actions). Gubrium and Holstein (1997) in Bryman & Bell et al., (2014:40) suggest four traditions of qualitative research:

- *Naturalism*: seeks to understand social reality in its own terms ("as it really is"), provides rich descriptions of people and interaction in natural settings
- *Ethnomethodology*: seeks to understand how social order is created through talk and interaction, has a naturalistic orientation
- *Emotionalism*: is concerned with subjectivity and gaining access to "inside" experience, is also concerned with the inner reality of humans
- *Postmodernism*: has an emphasis on "method talk," is sensitive to the different ways social reality can be constructed.

Creswell (2007) in McMillan and Schumacher (2014:344) defines qualitative research as follows: "Qualitative research begins with assumptions, a world view, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection

of data in a natural setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, reflectivity of the researcher, and a complex description and interpretation of the problem."

3.3.2.1 Key characteristics of qualitative research

Table 4: Key characteristics of qualitative research

Characteristic	Description
Natural settings	Study of behaviour as it occurs or occurred naturally
Context sensitivity	Consideration of situational factors
Direct data collection	Researcher collects data directly from the source
Rich narrative description	Detailed narratives that provide in-depth understanding of behaviour
Process orientation	Focus on why and how behaviour occurs
Inductive data analysis	Generalisations are induced from synthesising gathered information
Participant perspectives	Focus on participants' understanding, descriptions, labels, and meanings
Emergent design	The design evolves and changes as the study takes place
Complex explanations	Multiple, complex perspectives

(McMillan & Schumacher 2014:345)

3.3.3 Research type/strategy

A multiple case study design was most appropriate for this research undertaking. Case study design involved the detailed and intensive analysis of one or more cases, which the researcher aimed to study in-depth. A case could be a single organisation, a single location or a single event. The most common use of the term "case" associated the case study with a geographical location, such as a workplace or organisation. What distinguished a case study from other designs was the focus on understanding a bounded situation or system (Bryman & Bell et al., 2014: 110-111). The researcher studied the identified schools (case studies) to gain a deeper understanding of the phenomenon of educational inequality and to ascertain what factors contributed to its existence and the impact on teaching and learning. According

to Cousin (2005) in Maree et al., (2016:82), an important feature of case study research is that it tends to be researcher centred, often involving observation of participants and attempting to provide a holistic portrayal and understanding of the research setting. Documents were also analysed to ascertain what physical resources were on hand and whether they met the needs of the school. Shortfalls were noted and reasons gleaned as to the existence of these deficits. Factors contributing to these areas of lack were noted. Information on human resources were also subjected to scrutiny.

3.4 RESEARCH METHODS

Multiple ways of data collection were used to arrive at an acceptable construction of social reality within the identified research sites. Observations, individual and focus group interviews, and a study of relevant documents were some of the measures that was utilised to investigate the phenomenon of educational inequality.

3.4.1 Selection of participants

The researcher used a 5-kilometre radius to identify the schools in the area which yielded information rich data on the phenomenon of educational disparities. This subsection of the Highveld Ridge East Circuit of the Mpumalanga Province in the Gert Sibande District had schools that differed markedly from each other:

Table 5: Description of research sites

School	Description of location	Comment
A	A township school located in the heart of an informal settlement	Accessed
B	A former House of Delegates School	Accessed
C	A former House of Representatives School	Dropped because it did not fall into this circuit
D	A private, partially subsidised school with a religious ethos	Dropped due to indefinite COVID-19 closure
E	A special school	Dropped because it did not fall into this circuit
F	A former House of Assembly School	Accessed

These schools had a deep history. It was interesting to investigate the phenomenon of educational inequality within these settings, to ascertain how they differed in terms of access to physical resources especially since they were in such close proximity to each other.

Since various criteria and factors were considered when choosing the participants, the sampling method could be deemed to be purposive convenience sampling. Convenience sample is a sample that is selected because of its availability to the researcher. Purposive sampling is a non-probability form of sampling so the researcher cannot generalise it to a population. The researcher does not seek to sample on a random basis (Bryman & Bell et al., 2014:186). The goal of purposive sampling is to sample cases/participants in a strategic way, so that those sampled are relevant to the research questions (Bryman & Bell et al., 2014:186). The plan of action was implemented as follows:

Table 6: Research participants

Participants	**Area of participation**	**Comment**
Principals	Individual interviews	Accessed
Educators	Focus group interviews	Accessed
Administrative staff	Document analysis	Amended

3.4.2 Data collection

The researcher made use of observations, interviews and the analysis of relevant documents to collect data to ascertain how educational inequality manifested in the selected schools, what factors contributed to its existence, and its impact on teaching and learning. To achieve this, the researcher utilised McMillan and Schumacher's (2014:353-354) five phases of data collection:

- Phase 1: Planning

Taking a closer look at the problem statement and the primary research questions dictated the type of location or interviewees that led to conclusive relevant information, which underpinned the entire research process. The researcher identified and gained

access to utilise the locale. The sites had been purposively chosen since the researcher had been in the vicinity of some of these sites for over three decades. The necessary preliminary documentation had been completed as prescribed in the guidelines.

- Phase 2: Beginning data collection

The beginning days in the field were crucial as the researcher had the daunting task to set the scene for what was to follow. The researcher had to create a sense of camaraderie, faith and reciprocal relations with the individuals and groups observed. The researcher initially obtained data primarily to become oriented, for example, filling out the observation schedule with regard to first impressions of the infrastructure available at the various research sites. The purpose and focus of the study were explained. The participant information sheets, and consent letters were explained to the participants and left at the sites if safe conditions permitted it (due to the COVID-19 pandemic). Participation in the study was voluntary – this was emphasised. The principal was consulted to recommend participants for the focus group interviews. Appointments were scheduled to interview the principal and the focus groups at a later date convenient for all those involved, provided that safety and health protocols were in place as per the Department of Education directive to all schools.

- Phase 3: Basic data collection

The researcher began to hear and see what was occurring, which went beyond just listening and looking. Observations continued to be made as stipulated in the observation schedules. With the necessary permission of the principal, documents relevant to the study were scrutinised. Too many things could not be done in one or two days; hence, it was necessary to schedule interviews only on a particular day. Tentative data analysis began as the researcher mentally processed ideas and facts while collecting data. Initial descriptions were summarised and identified for later corroboration.

- Phase 4: Closing data collection

After all the interviews and observations had been conducted and documents studied, the researcher extended her gratitude to all the participants for their invaluable participation in the study. She assured them of a future visit to communicate her findings and share the insights and results of the study. When to terminate data collection is related to the research problem and the richness of the collected data. It now became necessary for the researcher to "leave the field."

- Phase 5: Completion

Completion of active data collection blended into formal data analysis and construction of meaningful ways to present the data. The researcher was now ready to connect the dots and put together a meaningful picture of the phenomenon under study. The researcher also had to bear in mind her pledge of giving back to the research sites in the form of time and service, most convenient to all parties concerned.

3.4.2.1 Observations

Observation is the systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with them (Maree et al., 2016: 90). It was a way for the researcher to see and hear what was occurring naturally in the research site. By observing naturally occurring behaviour over many hours or days, the researcher hoped to obtain a rich understanding of the phenomenon being studied (McMillan & Schumacher, 2014:376).

- Steps in conducting observations

After having selected the locale, the researcher ascertained an opening task to commence with the initial sets of observations. Access to the place was concluded, followed by fairly short, primary, and moderately broad observations of the field. The researcher had to "ease" into the field, building rapport and familiarity with the surroundings. After the initial data had been sourced, the researcher identified the aspects of more intense observations and thus adapted her position as the situation dictated. At this juncture, more comprehensive, pointed observations took place. On

site happenings were duly noted as and when they occurred (McMillan & Schumacher, 2014:376-377).

- Site selection and mapping the field

The next step after having identified a suitable site was to reach out to a possible contact who was in a position to permit entry to the locale and the participants. This person was referred to as the gatekeeper. The researcher had to be armed with a succinct written synopsis that identified the location, the participants and activities, the duration of the entire study, and the purpose of the research. Once the field had been entered, it was important to foster good relationships with all those who were instrumental in the success of the data collection process. Mapping the field is the acquisition of data on the social, spatial, and temporal affiliations in the locale to glean a sense of the whole setting. After initially mapping the field, the researcher purposefully chose the individuals, circumstances and occurrences most likely to generate meaningful data in respect of the evolving research questions (McMillan & Schumacher, 2014:376-377).

The following aspects of the research sites were observed, and copious notes written, however, due to the COVID-19 pandemic, the basic safety checklist had to be utilised first to ascertain the feasibility of going out into the field.

Table 7: Basic COVID-19 checklist

BASIC COVID-19 SAFETY CHECKLIST **SCHOOL: A, B, C, D, E, F**			
Aspect	**Yes**	**No**	**Observation**
Temperature screening			
Social distancing in place			
Teachers and learners are using cloth face masks			
Water and soap are available			
Sanitisers containing at least 60% alcohol are available			
Frequently touched surfaces are cleaned and disinfected regularly			

Adapted from the Centre for Disease Control

Table 8: Initial entry observation

INITIAL ENTRY OBSERVATION **SCHOOL: A, B, C, D, E, F**	
Aspect	**Observation**
Location of the school	
Access to the school	
Is the school fenced?	
Is there a guard/control point at the gate?	
Is parking available for teachers/visitors?	
Is there clear signposting?	
First impression of the school in terms of physical infrastructure	
Cleanliness	
Behaviour of the students	
Is the atmosphere conducive to learning?	

Table 9: EQUIP monitoring checklist

EQUIP MONITORING CHECKLIST **SCHOOL: A, B, C, D, E, F**	
Aspect	**Observation**
Learner teacher-ratio	
Actual class sizes	
Surplus/deficit of classrooms	
School facilities • Ablution facilities for boys and girls • Science/Biology laboratory • Library • Sick room • Sports field • Sports equipment • Meeting hall • Staff room • Cafeteria • Computer room/IT Lab • Wi-Fi/access to the Internet • Electronic equipment • Smartboard	
Payment of school fees and school funds	
Supply of learning materials from the National Department of Education (NDoE)	
INSET and materials received from Non-Governmental Organisations (NGOs)	
Teachers' years of experience	
Qualifications of teachers	
Availability of "core" learning and teaching materials in classrooms	
Teacher made materials	
Nationality of teachers	

Adapted from Sayed, Kanjee and Nkomo (2013:411)

The following template was intended to be used to record everyday activities but due to safety concerns, all visits to the research sites had to be kept to the bare minimum.

Table 10: Observation of everyday activities

OBSERVATION OF EVERYDAY ACTIVITIES **SCHOOL: A, B, C, D, E, F**				
Date and time	**Situation**	**Participants**	**Actions observed**	**Reflection**

Adapted from Maree et al., (2016:92)

Field notes of the everyday running of the school was intended to be kept as this could have contributed to and enhanced the richness of the study. However, circumstances beyond the researcher's control prevented this from taking place.

3.4.2.2 Interviews

According to Maree et al., (2016:92-93), an interview is a two-way conversation in which the interviewer asks the participants questions to collect data and to learn about the ideas, beliefs, views, opinions and behaviours of the participant. Van Schalkwyk (1986:182) in Van Schalkwyk (2011:199) defines an interview as "A specialised form of pre-planned verbal and non-verbal interpersonal communication between two or more parties on matters of mutual interest, which has to be completed within a restricted period of time." The purpose behind any interview is to gain an idea of what the reality on the ground is through another person's eyes. Two types of interviews were utilised to obtain information about physical resources at the research sites. Individual interviews of about 30-45 minutes in duration were conducted with the principal of each school according to an agreed and pre-determined date and time.

Structured interviews were conducted with the principals of the various schools. The questions asked were as follows:

- What is your main source of funding?
- What are some of the measures utilised by the school to procure additional funds?
- How involved are the parents when it comes to fundraising activities?
- When it comes to physical resources, what areas would you consider most lacking?
- How does the deficit in terms of physical resources affect the management of the school?
- What would you like to see take place in order for the situation to improve?
- What has been the impact of the closure of schools on 17 March 2020 due to COVID-19?
- How did your school deal with the extended closure in terms of addressing the academic needs of your students?
- How ready has your school been in terms of the mandated new protocols of health and safety to resume re-opening your doors to learners?
- What has been your biggest fears/concerns with regard to the re-opening of schools?
- In your opinion, what can be done to put your mind at ease?

Focus group interviews were conducted with a group of teachers at each school. A focus group interview refers to an interview using predominantly open questions to ask interviewees in a group about a specific situation or event that is relevant to them and of interest to the researcher (Merton, Fiske & Kendal, 1956) in (Bryman & Bell et al., 2014:216). The focus group interview can be used to obtain a better understanding of a problem or an assessment of a problem, or concern. That is, a qualitatively sampled group of people are interviewed, rather than each person individually. By creating a social environment in which group members are stimulated by one another's perceptions and ideas, the researcher can increase the quality and richness of data

through a more efficient strategy than one-on-one interviewing (McMillan & Schumacher, 2014:389).

The focus group interview was estimated to be about 30 minutes in duration. The interview was semi-structured in nature. Once the participants had granted the researcher permission, the interviews were duly recorded. During the interview process, the interviewer took notes to record supplementary information like non-verbal communication. Moreover, questions were designed to elicit open responses from the participants.

The following questions were asked:

- Are you satisfied with the physical resources at your school? If not, why not?
- In what way(s) are the resources or lack of resources affecting your teaching experience?
- What do you attribute the lack of resources to?
- What would you like more of?
- How co-operative are the parents when you request supplies to be sent to school?
- What is the impact of the lack of resources on students?
- At your school, what is being done to address the dearth of resources?
- What are your recommendations for alleviating the problems associated with the scarcity of essential resources?
- How did you cope with the closure of schools from 17 March 2020?
- What strategies have been put into place to catch up on teaching due to the COVID-19 pandemic?
- Are these strategies working? If not, why not?

The primary qualitative interview data are verbatim accounts of what transpires in the interview session. Tape or digital recording the interview ensures completeness of the verbal interaction and provides material for reliability checks (McMillan & Schumacher, 2014:386). Once the interviewees' responses had been recorded, they were transcribed and analysed.

3.4.2.3 Documents

Documents were an important source of information, as they were an essential paper trail to track how an institution was managed. In order to ascertain educational inequality on access to physical resources, it was necessary to study relevant documents pertaining to the question on hand. Some of the documents that shed light on the issue of access to physical resources were the following:

- Record of supplies received and disseminated.
- The school's financial statement
- Utility bills
- Attendance registers of teachers
- Statistical information: teacher workload and student attendance
- Minutes of meetings (teacher and parent meetings)
- Fundraising initiatives
- Sponsorships
- Written communication to parents where the issue of resources was addressed
- Newspaper reports about the school regarding resources, if any.

The principal and administrative staff were given the assurance of the confidentiality of these statistics. The participants were reassured that the school would not be identifiable in print.

3.4.3 Data analysis

After the necessary measures had been put into place to secure permission to visit the identified research sites, initial contact was made to brief the principals of the intended research. However, since the country was on high alert due to the COVID-19 pandemic, it now became incumbent on the researcher to ascertain the feasibility of going out into the field. The COVID-19 safety checklist was the instrument used to gauge whether the intended data collection could take place during the scheduled period. Appointments were scheduled for the interviews to take place. While on the research site, observations were duly recorded.

Qualitative data analysis is an inductive (specific to general) way of sorting the information gained into various groups and thereafter finding patterns and connections among components within the groups. In qualitative investigations, analysis takes place during the data collection process itself as well as after the data has been acquired. Inductive scrutiny of collected data is the method that is utilised by qualitative research practitioners to integrate and make sense of the information, commencing with exact data and concluding with categories and patterns. In this way, more broad themes and conclusions surface from the data rather than being imposed before data gathering. Qualitative analysis is a methodical procedure of coding, categorising, and interpreting data to provide clarifications of a single phenomenon of interest (McMillan & Schumacher, 2014:395).

After the information had been sourced by means of observations, interviews and document analysis, they had to be ordered. This systematic arrangement of the data divided it into a few, easy to work with components. The researcher utilised the following to get going: the research question and foreshadowed problems or sub-questions, the research tool such as the interview guide, themes, concepts and categories used by other researchers, prior knowledge of the researcher or personal experience, and the data themselves (McMillan & Schumacher, 2014:397). The information gathered needed to be transcribed after being ordered. The three types of data in qualitative studies subject to scrutiny and examination are notations made during the observations and interviews, audiotape recorded interviews, and visual images, which in this case were the relevant documents. Transcription is a procedure

that entails taking notes and other information and translating them into a structure that will enable analysis. For onsite and interview notations, it is best to make succinct synopses that could be elaborated upon straight away following the observations and interviews (McMillan & Schumacher, 2014:398).

Data needed to be assigned codes after being transcribed. Data coding commenced by identifying small units of information that stood apart. These fragments of information, called segments, separated the dataset. A data segment was text that made sense by itself and contained a single idea, episode, or piece of pertinent information. A segment was any size ranging from a word to a sentence, to a few lines. Segments were then subjected to scrutiny to come up with codes so that each segment was at least labelled by one code. A code was a name or a phrase that was used to provide meaning to the segment. Codes comprised of the following: setting/context, participants' perspectives, participants' thinking about people and objects, process, activity, event, relationship and social structures or strategy (McMillan & Schumacher, 2014:398-399).

The individual and focus group interviews were recorded and transcribed. In order to make sense of the transcriptions, data were coded.

Table 11: Note taking points

Own reflective notes and observations	Transcript	Coding

Maree et al., (2016:101)

According to Maree et al., (2016:116), "coding is the process of reading carefully through the transcribed data, line by line, and dividing it into meaningful analytical units. Coding is therefore defined as marking the segments of data with symbols, descriptive words or unique identifying names." The coding process enables researchers to quickly retrieve and collect all the text and other data that they have associated with some thematic idea so that the sorted bits (meaning units) can be

examined together, and different cases compared in that respect (Maree et al., 2016:116).

Suggested steps to coding:

- Code as soon as possible
- Read through your initial set of transcripts, field notes, documents, etc.
- Do it again, highlighting keywords/phrases
- Review your codes
- Consider more general theoretical ideas in relation to codes and data
- Remember that any one item or slice of data can and often should be coded in more than one way
- Do not worry about generating too many codes
- Coding is not analysis

Coding is a mechanism for thinking about the meaning of your data and for condensing the vast amount of data that you are facing (Miles et al., 2013 in Bryman & Bell et al., 2014:337). Popular qualitative analysis packages include Ethnograph, NVivo, NUD*IST, and ATLAS.Ti (Maree et al., 2016:126). Other computer-aided content analysis software is QDA Miner Lite and WordStat (Bryman & Bell et al., 2014:301). The key benefit of utilising software packages is that it is much easier to work with than heaps of data obtained with hundreds of pages of textual information. It is simpler to store and order huge amounts of data than hard copy. Software also has the added advantage of quickly searching for and locating segments of data. This is similar to a content analysis, where single words and phrases can be found. Once data are assigned codes, it is easy to pull all data segments for each code and each of the code for categories. Retrieval of data is easy, without the need to search pages and pages of text. Qualitative software is able to analyse and combine text, audio, and visual elements as well as different codes. Some software programmes are also able to test propositions and hypotheses about the meaning of the data (patterns).

In addition, some programmes allow mapping of relationships among codes and categories using visual diagrams to show the relationships (McMillan & Schumacher, 2014:409). The researcher put the above theoretical procedures and guidelines into practice once the data had been secured. Knowing the theoretical components of the data analysis procedure served as an important point of departure to make sense of the collected data. It also definitely made life easier knowing that appropriate software programmes existed to assist one in the analysis of data.

3.5 MEASURES FOR TRUSTWORTHINESS

In qualitative research, it is important to establish trustworthiness. Research scholars who examine the research document must be able to see the merit in the study from the research design to data collection, analysis and findings. In a nutshell, the investigation as a whole must make sense. The four key criteria that will ensure trustworthiness in a study are credibility, transferability, dependability and confirmability (Guba 1981 in Maree et al., 2016:123).

3.5.1 Credibility

Credibility deals with the questions: how congruent are the findings with reality? How do I ensure that the reader will believe my findings?

3.5.2 Transferability

Transferability invites readers of research to make connections between elements of a study and their own experience or research. The readers can determine if the findings can be transferred to their setting or environment.

3.5.3 Dependability

Dependability is demonstrated through the research design and its implementation, the operational detail of data gathering and the reflective appraisal of the project.

3.5.4 Confirmability

In Maree et al., (2016:125), Lincoln and Guba (1985) describe confirmability as the degree of neutrality or the extent to which the findings of a study are shaped by the participants and not by researcher bias, motivation or interest.

3.6 ETHICAL MEASURES

It was important that participants were not disadvantaged in any way by the research being undertaken, hence, the research sites were identified by the letters of the alphabet. The modus operandi was to begin with the outlying schools and move towards the town centre. The territory, layout and location of the schools were imprinted in the researcher's mind (having been a resident in this area for 31 years) to alleviate any confusion. All participants were informed that their involvement in the study was purely voluntary. They were also informed that they could withdraw from participation at any point. They were given the assurance that their identities would be protected. The settings and participants would not be identifiable in print. Thus, locations and features of settings are typically disguised to appear similar to several possible places and researchers routinely code names of people and places (McMillan & Schumacher, 2014:363).

According to Maree et al., (2016:44), it is recommended that letters of consent be obtained, permission to be interviewed also be obtained and participants be notified that all audio recordings be erased after use. Furthermore, it should be noted that deception in any form violates informed consent and privacy. Furthermore, although physical harm to participants seldom occurs in qualitative research, some persons may experience misgivings. A sense of caring and fairness must be part of the researcher's thinking, actions, and personal morality (McMillan & Schumacher, 2014:363).

The researcher applied to the University of South Africa (UNISA) College of Education Ethics Review Committee (ERC) and was granted an ethical clearance certificate on 13 May 2020 to undertake the proposed research study. This gave the researcher and

other relevant stakeholders the assurance that the study, though purely for academic reasons, could contribute to theory, practice, policy and social issues, and action in a significant manner. It could have the power to challenge and change the status quo (McMillan & Schumacher, 2014:349). However, despite getting approval to conduct the research, the state of education globally across all walks of life had led to an unprecedented state of affairs, even on home ground. The researcher carried her health certificate into the field, which indicated that she was tested for COVID-19 and was certified negative. This added safety measure was to ensure that she was not regarded with distrust upon visiting the various identified sites.

3.6.1 Amendments due to COVID-19

The year 2020 will go down in history as the most memorable year thus far because of the far-reaching global consequences of the Coronavirus pandemic. It was not something that one saw from far off but a phenomenon that had affected normal people going about their business in profound and disturbing ways. It had also affected even the way people conducted research. UNISA had suggested the following protocols to ensure that research conducted during these unpredictable, potentially volatile days, would not adversely affect the researcher or the participants, since non-adherence to certain measures could lead to human fatalities in some cases:

- No research involving face-to-face contact or research studies involving settings where it is difficult to institute physical distancing or practice protective measures may continue without formal notification and approval by the Ethics Review Committee (ERC) that granted the approval in consultation with one of UNISA's registered Health ERCs/RECs

- Where feasible, researchers may, with the consent of the participants, move from face-to-face to remote data collection and follow-up visits. This could be in the form of online data collection (telephonic, e-mail or other platforms considered only when safety and confidence can be assured). A progress and amendment report (Form 4) needs to be submitted to the relevant ERC for expedited review of changes to the study proposal prior to data collection

- Amendments to the study proposal need to be inserted in the information letters and informed consent forms and should be e-mailed to the participants or designated authorities as arranged by the researcher. This will be applicable for online data collection and interviews by telephone or email
- If the consent cannot be obtained in writing due to an imposed travel ban, a temporary site closure (e.g., for health or safety reasons), or other extenuating circumstances, the verbal consent must be fully documented and witnessed. Both verbal and written informed consent must be obtained unless there are good reasons for not doing so. Verbal consent should be obtained in the presence of an independent witness who should verify this in writing or submit evidence of this in the form of an audio-visual recording
- Every effort must be made to inform research participants timeously of those changes that impact on them
- UNISA supports the use of Microsoft Teams for recruitment and data collection activities
- The use of online tools such as Zoom, WhatsApp and Skype create privacy and confidentiality concerns and is not supported by UNISA
- Where or when it is unavoidable to reduce, suspend or postpone research activities, the onus is on the principal researcher to notify the ERC and to provide a rationale why the research needs to continue
- The ERC must notify the UNISA Research Ethics Review Committee (UURERC@unisa.ac.za) of all ongoing studies that may pose a risk of harm relating to the COVID-19 pandemic within 48 hours.

In addition to the above recommendations, the following guidelines should also be borne in mind during the data collection process:

- National instituted protective measures such as hand hygiene, cough etiquette, and physical distancing should be implemented, and monitored at sites/laboratories where these studies will continue

- Researchers should develop a ‘COVID-19’ template register in case retrospective contact tracing becomes necessary (names and contact details of all present on site to be registered daily from everyone going in and out) when it is unavoidable to reduce, suspend or postpone research activities
- Should any research staff, students or participants develop signs or symptoms suggestive of COVID-19, please call the National Coronavirus Hotline (0800 029 999)
- The unique dynamics of social/physical distancing and lockdown regulations, more than ever, create a need for psycho-social support for researchers, participants and ERCs chairpersons and members.

3.7 CHAPTER SUMMARY

It was of utmost importance to have a proposed plan of action when undertaking any research study. The value and contribution of the study should not and could not be taken lightly. A methodical study researched, planned and executed with diligence and commitment oftentimes was the product of many sacrifices. From the research design to the research approach and the research strategy, it was with all intents and purposes somewhat workable, doable and practical. However, things always did not go according to plan. At that particular time South Africa, together with the rest of the world, was besieged by a life-threatening disease, COVID-19. Life as we knew it was a distant memory. Across all sectors of our existence, there had been major changes in the way we did things. However, the researcher hesitatingly went out into the field to conduct the research, although there was uncertainty regarding whether things would materialise due to unforeseen circumstances and the tenuous situation affecting everyone. The intended research could perhaps only take place if feasible at a much later date. Things were changing daily and when the opportunity presented itself, it was taken advantage of immediately.

A research schedule was drawn up to keep track of things:

Table 12: Research schedule

RESEARCH SCHEDULE				
Date	Venue	Activity	Duration	Comment

The research participants were carefully selected, and the methods of data collection and data analysis were given much thought. The moral aspects of the study had also been taken into consideration.

In the following chapter, the collected data will be analysed. The findings represent the data; therefore, attention will revolve around isolating facts and figures. Since the qualitative approach was the chosen approach, the presentation of the findings will be descriptive in nature. Moreover, each data collection method will be carefully reported on. Thereafter, data will be interpreted to arrive at a meaningful synopsis. The findings to some degree will verify or reiterate what the theory has been alluding to. It is also in this chapter that it will become clear whether the research questions and sub-questions have been answered satisfactorily. Despite the ideal scenario being outlined in fine detail on paper, the feasibility of going out into the field depends entirely on how ready the schools are to resume classroom teaching after the prolonged closure as a result of the COVID-19 pandemic. This situation has a direct impact on the researcher’s timeline for this research study.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

The previous chapter outlined the research methodology that guided this research study. This chapter presents and analyses the findings of the data pertaining to the access of physical resources in the Highveld Ridge East Circuit of Mpumalanga during COVID-19. Multiple case studies provided more insights into the phenomenon under question. Yin (1984:23) in Maree et al., (2016) expounds case study investigation as an experiential probe that examines a current issue within a real-life setting. Multiple data collection strategies were employed at the three research sites to source succinct data that would shed more light on the issue of educational disparity. The researcher made use of observations, individual, and focus group interviews, and the analysis of relevant documentation to collect evidence that would clarify the problem being probed. All the collected data were analysed and triangulated to provide a better understanding of the phenomenon under study.

In chapter one, the main research question and sub-questions were clearly defined to drive this investigation and give it guided focus, as the issue of educational inequality was a broad and multifaceted phenomenon. The purpose of this study was to establish how educational inequality came across in the three sampled schools and to ascertain what the effect on teaching and learning was, if any. To reiterate, the objectives of the study are stated as follows:

The research revolved around the following objectives:

- Determine the factors that contributed to educational inequality in respect of physical resources
- Ascertain the impact of educational disparities pertaining to physical resources on teaching
- Establish the effect of educational inequality in respect of physical resources on learning
- Determine how well-equipped Mpumalanga schools were in coping with a global pandemic.

This chapter presents the data collected in three sections. To protect the identity of the purposively selected research sites, the pseudonym A, B and C will be used to refer to the schools respectively. The first section deals with observations noted whilst in the field. The second section deals with the interview section of the data collection process comprising of individual interviews conducted with the principals and focus group interviews conducted with the teachers. The principals, as participants in the face-to-face individual interviews, are hereafter referred to as PA, PB, and PC. The teachers, as participants in the face-to-face focus group interviews, are hereafter referred to as TA1, TA2, TA3, TB1, TB2, TB3, TC1, TC2, TC3, TC4, TC5, TC6, TC7, and TC8. In this way, it would be difficult to recognise the participants in print.

4.2 RESEARCH PROCESS

After receiving the widely anticipated ethical clearance certificate, it was incumbent thereafter to seek formal written consent from the Mpumalanga Provincial Department of Education to be cleared to proceed with field work at the identified research sites. Once approval had been granted, the researcher visited the local district circuit office to gain permission from the appropriate circuit manager to access the case studies in the sample. The first visit to the circuit office proved to be unsuccessful as all circuit managers were attending a meeting convened for the principals of the local schools. This emergency meeting was scheduled to discuss the way forward for all schools in view of the president's announcement the previous night (23 July 2020) regarding the closure of all schools with immediate effect in response to the escalating daily infection rates of the coronavirus disease.

As previously indicated, COVID-19 was the cornerstone around which life had to be re-structured on both a national and global basis. The president mandated that matric students could return to school after a week's break, while the Grade 7's returned after a two-week break and the rest of the grades after four weeks. These were over and above the intermittent closure and re-opening of the schools from 17 March 2020. This unforeseen setback once again meant that the researcher was unable to get the prerequisite approval from the circuit office to venture out into the field. Once the circuit office re-opened a week later, a second visit turned out to be more fruitful. However, the researcher was disappointed to learn that two of the schools selected as part of

the sample were not in the Highveld Ridge East Circuit jurisdiction but fell into the Highveld Ridge West Circuit, although they were literally metres way from each other. These schools had to be removed from the study for two reasons: firstly, it would affect the topic of the study. Secondly, the circuit manager for that area was not in office. To avoid any further delays, the researcher took an executive decision to remove these sites from the study.

Another challenge was that only one of the four schools was open. The other three schools were scheduled to re-open a week later. Initially, the researcher preferred to interview the Grade 3 teachers as she was also a Grade 3 teacher, however, in view of the extenuating circumstances, she was forced to refine her data collection strategy by interviewing the Grade 7 teachers as they were the only ones available to interview at the school, with the exception of the matric teachers who were already back at school preparing for the commencement of classes. Another setback was that one of the four remaining schools proved to be inaccessible due to the indefinite closure of the afore-mentioned as a result of the numerous positive COVID-19 cases involving both teachers and students at the school. Thus, the sample size was further reduced from six to three. Despite these limitations, the researcher was confident that the remaining samples were adequate to source the much-needed relevant data for the study, as they were representative enough. These amendments were necessary, as they were a direct reflection of the situation at the time.

The researcher was filled with misgivings about going out into the field. Firstly, she was concerned about her own personal health as she was unsure as to whether the sampled schools would have the necessary COVID-19 safety and health protocols in place as mandated by the Minister of Education. Secondly, the researcher was apprehensive because she was unsure whether the schools would be accommodating of her request to conduct research at the identified site, considering the uncertain, turbulent situation both nationally and globally.

The sample sites consisted of three schools in the Highveld Ridge East Circuit of Mpumalanga. School A was a township school situated in the heart of an informal settlement in a low socio-economic status area. The teachers at this school were all Black Africans. School B was located approximately less than a kilometre from School

A. This school was located in the heart of a middle-class socio-economic status area and had teachers of various racial groups and nationalities (including two teachers from Zimbabwe). School C was located in a fairly affluent suburb on the outskirts of the central business district about four kilometres away from Schools A and B. The majority of the teachers at this school were White, with four Black teachers.

On the first visit to the schools, the researcher met with the various principals and deputy principals to brief them on the purpose of the study. The participant information sheet was given to them, together with the information sheets for the teacher participants. The principals were supportive. They signed the consent form and agreed to be interviewed immediately. They also graciously agreed to inform the teachers about the purpose of the researcher's subsequent visit and to arrange a suitable venue and time for them to participate in the focus group interviews. The focus group interviews took place on the second visit to the schools but on different days. On the third visit, the researcher collected outstanding data, distributed signed copies of the consent forms, and provided delicious treats for the participants to express her heartfelt gratitude for their contribution to the investigation.

Their co-operation was vital for the study and the researcher appreciated all the schools' efforts in making the process smooth. As the focus of the study dealt with access to physical resources, a monetary contribution was made to two of the schools in lieu of supplies, and all the teacher participants received cloth face masks. It was also pleasing to note that all the schools had heeded the Minister of Education's call to have the necessary COVID-19 health and safety protocols (summarised below) in place:

Table 13: COVID-19 health and safety protocols

Aspect	**School A**	**School B**	**School C**
Two screeners paid for by the department were noted	√	√	√
Temperature screening done at entrance to site	√	√	√
Social distancing points demarcated and practiced	√	√	√
Teachers and students wore face masks	√	√	√
Sanitisers were available	√	√	√
COVID-19 health questionnaire at entry point	√	√	√
Personal details register available for contact tracing	√	√	√
Water and soap were available	√	√	√
Frequently touched surfaces are cleaned and disinfected daily	√	√	√

The importance of having these measures in place cannot be emphasised enough. To reiterate the importance, it is necessary to heed Smith's (2020) advice:

"Since the transmission rate is relatively high, one person can spread the infection to between 4.7 and 6.6 others. Schools can be a potential disaster area if precautions are not followed, the most important being washing of hands frequently, sanitising common areas regularly, practicing social distancing, wearing cloth face masks and being on the look-out for early warning signs of the disease."

4.3 QUALITATIVE DATA ANALYSIS

Miles and Huberman (1994) as cited in Maree et al., (2016) propose that an analysis of data can commence by methodically arranging the information collected (narratives, words and visual materials) into tiered associations, matrices or other arrays. Qualitative data analysis is frequently founded on an interpretative philosophy that is aimed at studying significant and representational content of qualitative data. It tries to gauge how participants make meaning of a specific phenomenon by taking a closer look at their perceptions, attitudes, understanding, knowledge, values, feelings and experiences in an attempt to approximate their construction of the entity. This is best accomplished by means of a system of inductive analyses of qualitative data where

the key motive is to allow research findings to emerge from the recurring, central or prevailing themes inherent in raw data, without the restrictions enforced by a more theoretical orientation (Maree et al., 2016:109).

4.3.1 Data collection strategies

The data collection strategies employed by the researcher were as follows: observations, individual and focus group interviews, and an analysis of relevant documents. Data were collected from three case study sites situated within a five-kilometre radius of each other. The Highveld Ridge East Circuit of Mpumalanga was the chosen area to investigate the phenomenon of educational inequality on access to physical resources. School A fell under quintile 1 and Schools B and C fell under a category known as section 21 schools. School A served an impoverished community and was embedded in the heart of an informal settlement, School B was located in a better neighbourhood than School A, and School C was situated within a more affluent area than Schools A and B. The researcher was convinced that these purposively selected sites were representational enough and would yield conclusive evidence on the entity under scrutiny.

School A consisted of students from a low socio-economic status background, and all the students in the school were Black. School B was attended by students from a middle socio-economic background, and although the student population was primarily Black, there were minority Coloured and Indian groups as well. School C was home to students from a high socio-economic background and comprised of an interesting mix of Black, White, Coloured and Indian students.

The proposed research schedule was as follows:

Table 14: Research schedule

Date	Venue	Activity and Comments	Duration
24/07/2020	Circuit office	Request permission to conduct research. Circuit Manager unavailable	30 minutes
3/08/2020	Circuit office	Request permission to conduct research. Permission granted.	30 minutes
4/08/2020	School B	Initiate first contact and distribute participant information letters. Principal briefed. Deputy principal nominated for the individual interview. Observations also conducted.	60 minutes
4/8/2020	School B	Individual interview: 14h30. Deputy principal to set up time for the focus group interviews and distribute the participant information letters.	30 minutes
11/08/2020	School C	Initiate first contact and distribute participant information letters. Observations also conducted. Principal consented to the interview immediately. HOD informed to set up meeting for the focus group interview and to hand out the letters. Meeting set for 12/08/2020 from 12h00 – 13h00.	60 minutes
11/08/2020	School A	Initiate first contact and distribute participant information letters. Principal unavailable. Deputy principal nominated for the individual interview that took place immediately after the briefing. DP to set up time for the focus group interviews. Meeting set for 13/08/2020 from 09h00 – 10h00. Observations also conducted.	60 minutes
12/08/2020	School C	Focus group interview. 12h00 – 13:00. Handing out of face masks.	75 minutes
12/08/2020	School B	Focus group interview: 14h30 – 15h00. Handing out of face masks.	30 minutes
13/08/2020	School A	Focus group interview: 09h00 – 10:00. Handing out of face masks.	70 minutes
20/08/2020	School C	Distribution of signed copies of consent forms. Biscuit treats left for participants. Document analysis conducted with the administrative clerk.	40 minutes
	School B	Distribution of signed copies of consent forms. Biscuit treats left for participants. Document analysis conducted with the administrative clerk.	45 minutes
	School A	Distribution of signed copies of consent forms. Biscuit treats left for participants. Document analysis conducted with the administrative clerk.	35 minutes

4.3.2 Observations

An observation is a systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with them (Maree et al., 2016: 90). The researcher relied on her senses of hearing and sight to record her observations. In this way, she tried to gain a deeper insight into the phenomenon under scrutiny.

4.3.2.1 School A

School A was a primary school in a township; it accommodated Grade R-7 learners. It was surrounded by informal shelters. The school was fenced, and the access point was through the main gate. The parking lot was uneven, untarred and had no carports. There was no security guard at the entry point. Once you were noticed at the gate, someone came to let you in. Although parking was available for both teachers and visitors, access for visitors was restricted due to the COVID-19 pandemic. There was no clear signage as the school lacked an administration block. Once you had gained entry to the school, your hands were sanitised, temperature taken, and you had to fill in the health questionnaire and personal details. COVID-19 posters were not observed. The researcher was informed that the posters were displayed on the inside of the windows because the first lot of posters were torn down by vandals.

The first impression of the school in terms of its physical infrastructure was that it was a standard school with the basic essentials. There were some portable structures as well. There were no frills to this school. No sporting facilities were evident. The school was clean. Only Grade 7 learners were in attendance. Students and teachers wore face masks. The school did not have gardens or any colourful structures. It was quiet at the school, and only teachers' voices were heard as they delivered their lessons. It was uncanny that the usual buzz and hive of activity within a primary school was absent. Covid-19 had left its mark here too.

4.3.2.2 School B

School B was a combined school that housed learners from Grade R-12. It was located within the heart of a middle-class suburb. The school was fenced all around and had access via a main- and pedestrian gate. There was a full-time guard seated in a guard house who controlled access to the school. A neat, well-maintained paved parking lot with carports was available for teachers and visitors alike. However, due to the COVID-19 pandemic, access to visitors was restricted. Visitors were given hand sanitisers, had their temperatures taken and had to fill in the mandatory health questionnaire as well as personal details. The researcher was able to locate the administration block with ease because of the clear signage. Chairs in the waiting area were placed 1.5 metres apart to comply with the government's directive on social distancing. A table was placed against the wall in front of the receptionist's window to prevent visitors getting too close to the people inside. COVID-19 posters were prominently displayed.

The first impression of the school, in terms of physical infrastructure, was that it was definitely better equipped than School A. The terrain was even, the school grounds were large and there was a block for the Grade R's. This was evident because of the jungle gyms and other colourful equipment that was observed. This school also had portable structures like School A. There were tall, beautiful trees and lush, blooming gardens. The school was neat and tidy. Only Grade 12's and 7's were in attendance. Students and teachers were either wearing masks or face shields. It was quiet at the school. Only teachers' voices were heard as they delivered their lessons.

4.3.2.3 School C

School C was a primary school located on the outskirts of a central business district within an affluent residential area. The school was fenced all around and had one main access point. There was no full-time guard controlling access at the gate. When you were observed at the gate, someone came to let you in. Parking was available for both teachers and visitors alike but access for visitors once again was restricted due to the COVID-19 pandemic. The parking lot had a grassy surface and several trees provided shelter for the cars. A second fenced off area provided added security. Two screeners

were responsible for dispensing hand sanitiser, taking peoples' temperature and ensuring that the health questionnaire and personal details were duly recorded.

The first impression of the school was that it did not look like a typical school. The buildings looked like colourful albeit old houses. Clear signage led the way to the office administration block. Although the buildings looked outdated, they were attractive and different. Teachers were observed seated on the other side of the fence handing out resource packs to parents for their children in the different grades who were forced to stay at home. Only Grade 7's were in attendance. The students and teachers wore masks. The school was quiet.

4.3.3 Individual interview data

An interview is a two-way conversation in which the interviewer asks the participant questions to collect data and to learn about the ideas, beliefs, views, opinions and behaviours of the participant (Maree et al., 2016:92-93). In this way, one could actually experience the participant's reality through his/her eyes.

A structured interview approach was used to conduct individual face-to face interviews with the three principals at the identified research sites. Since a multiple case study design was utilised, the researcher drew up a pre-determined set of questions. All the participants received the same set of questions in the same order to ensure standardisation and consistency.

Table 15: Profile of the individual interview participants

Aspect	School A (PA)	School B (PB)	School C (PC)
Rank	Deputy Principal	Deputy Principal	Principal
Gender	Female	Female	Male
Ethnic group	Black	Indian	White
Age	47	51	60
Qualification	SPTD & ACE	HED	M ED
Years of experience	23	28	22

The individual interviews were conducted with the deputy principals and principal as indicated on the research schedule. Once the participant information sheet was read, the participants gave their written consent for participation (through interviews) in the study. Thereafter, permission was granted for the interview to be video recorded. To the researcher's dismay weeks prior to the interview, the shops in her area did not have any audio recorders in stock. Therefore, the researcher was compelled to use her cellular phone's recording feature to record the interview. To supplement the recording, the researcher took down notes as well in the event that the quality of the recording was compromised in any way. The interview questions were asked according to the sequence in the below schedule, as follows:

- ***What is your main source of funding?***

Participant PA indicated that funds were mostly received from the Department of Education. She went on further to explain:

"We don't have any extra funds that are coming in as this is a no-fee paying school, quintile one."

Participant PB reported that her school received money from the Department of Education, which was also called a "paper budget." The school also received funds from the students in the form of school fees. Participant PC attested that his school received funds from the department of education, but the majority of the funds came from the students in the form of school fees. He had this to say about the matter:

"We are actually dependent on school fees. We must get school fees."

- ***What are some of the measures utilised by the school to procure additional funds?***

Participant PA reported that the school did not have measures in place to procure additional funds although what the government was providing was insufficient.

"It is insufficient. It will never be sufficient." (Vehement and anxious)

She had this to say about the learners in the school:

"Most of the parents don't work here. The children live with their grandparents. Some of them live in child-reared households. Fundraising here is never easy. Once a month or so we ask for two rands and sometimes we don't even get that."

Participant PB indicated that the school did not make use of any measures to procure additional funds. The school relied heavily on the payment of school fees by the students. She elaborated by saying the following:

"There is no fundraising at this school as such."

Participant PC stated that the school fees were not enough. He substantiated his opinion by explaining how additional funds were raised:

"We have cake sales, and at athletics meetings we sell some food. We also have measures in place like Easter egg projects and we normally get a donation from the photos that we take."

- ***How involved are the parents when it comes to fundraising activities?***

Participant PA stated that approximately 60% of the parents would respond. The other 40% simply did not have the means. Participant PB indicated that parental involvement was basically non-existent because the school did not have fundraising initiatives in place. Moreover, Participant PC mentioned that the parents were not very involved in the fundraising activities of the school. It became a staff initiative although it should have been driven by the SGB.

- ***When it comes to physical resources, what areas would you consider most lacking?***

The physical resources most lacking at Participant PA's school were toilets and the kitchen. She went on to elaborate:

"The enrolment and the number of toilets that we have are insufficient."

She also added that the population of the school increased each year, but the number of classrooms remained the same. This had resulted in a shortage of classrooms. The school was compelled to admit all the learners.

Participant PB indicated the following with regard to the lack of physical resources:

“I would like to see more toilets really, more functional toilets.”

Participant PB reported that the school had sufficient classrooms because Sasol, a petrochemical company, had donated some of them. She indicated that the school did not have a functional library because it was utilised as a classroom. An additional Science laboratory would also benefit the school. School fees were utilised to purchase outstanding resources.

Participant PC said that he would like more classrooms because the school enrolment was growing. He said that the school needed about nine more classrooms and additional teachers, plus furniture for those classrooms. He would also like more toilets at the school. He expanded the list of resources by stating:

“I would like to see more current technology. We are talking computers and white boards, as well as interactive boards because we must pay that out of our pockets, and we do not have enough money in the school’s bank account to do that.”

- ***How does the deficit in physical resources affect the management of the school?***

Participant PA reported that the deficit in resources had affected the management of the school. The principal, deputy principal and Head of Department did not have offices. The portable structure that we were sitting in was donated by the Evander mine which was now used as management offices. She explained how this affected management:

“We never had any privacy sitting like this. We have to be squashed in a corner somewhere even if you have to discipline somebody.”

Participant PB indicated that the management of the school was not affected because the upgrading of the school to a Mathematics, Science Technology Academy (MSTA) ensured that all resources were provided by the school. She had this to say:

“We are fairly well-equipped. We were given chemicals and data projectors.”

She indicated further that since there was a huge demand for the Computer Applications Technology (CAT) subject, more computers and servers would be welcome. Participant PB also expressed the need for a back-up generator in the event of power disruptions, especially during computer examinations.

Participant PC responded by stating that the school had worked with what they had.

"If the teachers wanted to do something more technologically advanced in the classroom, they use their own data projectors and laptops."

- ***What would you like to see take place in order for the situation to improve?***

Participant PA expressed the desire to have a full-time security guard so that the resources at the school could be protected.

She elaborated further:

We pay for a guard ourselves when we need to – although this is a temporary situation.

She also indicated that in addition to an office block and more classrooms, the grounds needed more attention. The uneven terrain posed a danger to both the students and the teachers. She would also like to see more involvement from the community.

Participant PB responded that it would benefit the school to have a separate functional Science laboratory for the primary school. This would help to stimulate interest in science from a young age, which was in keeping with the nature of the school.

Participant PC indicated that the department must help the school in reaching its dream of having the best technology. The problem he outlined was the following:

"As we are a small school, we cannot raise a lot of money to buy it ourselves. We either get donations or help from outside parties. We are struggling to pay our everyday bills. Computers are a luxury. Operational expenses must be dealt with first."

- ***What has been the impact of the closure of schools on 17 March 2020 due to COVID-19?***

After the schools re-opened, participant PA reported that the student attendance had dwindled. Four of the teachers at the school had tested positive for COVID-19.

"Parents got scared so they stopped sending their children to school."

Participant PB indicated that the closure of schools had an impact across all levels from Grade R-12. She added the following:

"If we look at the Grade 12's, we are under pressure to complete the curriculum in a limited amount of time. No time to do revision. In my opinion, I believe that there will be content gaps in other grades."

Participant PC stated that the learners were behind in their schoolwork:

"We have to rush through the syllabus to get all the work done."

Homework was sent to the learners via the D6 communicator. There had been a good response to this. Online teaching would have been better, but the parents did not have access to the Internet or data.

- ***How did your school deal with the extended closure in terms of addressing the academic needs of your students?***

Participant PA indicated that the school could not go online but written work was given to the students. The response rate to this was 20%. Students collected work on a Monday. The initial response was good thereafter it had fizzled out.

"No-one planned for this, we had to do things in a rush without thinking about it. We were just doing things for the sake of doing them, to show that we did something. It was sometimes irrelevant."

Participant PB stated that it was difficult to address the academic needs of the students as they came from different backgrounds. She had this to report:

"They do not have access to online facilities, nor compatible cellular phones to receive information – most of them also don't have data.

She also indicated that the staff lacked training in presenting online lessons. Communication to distribute information was enforced with matric students only, but the problem of compatible cellular phones and the issue of the lack of data was evident with the matric students too.

Participant PC attested that even with the school's D6 system of communication with the parents, there were challenges:

"Most of the parents don't have data. These are some of the frustrations we had with the system. The parents don't always have data."

- ***How ready has your school been in terms of the mandated new protocols in terms of health and safety to resume re-opening your doors to learners?***

Participant PA had the following to say about school readiness for a COVID-19 situation:

"Things were coming in dribs and drabs. Masks for the Grade 7's and sanitisers were available. The classrooms and offices were sanitised."

She also reported that the screening of teachers was also done. Two screeners paid for by the department were on hand.

Participant PB reported that the school had adequate supplies of sanitisers that were supplied by the department and also purchased by the school as well. Masks were delivered as the various grades were due to attend. Participant PB also attested the following:

"We also have three digital thermometers on hand. We also have a compliance officer. The department did provide us with two individuals to assist with screening. Learners were also orientated."

Participant PC stated that the school had complied with the mandate by the Department of Education with regard to the health and safety protocols. The school also had the necessary masks, hand sanitisers and thermometers.

- ***What has been your biggest fears/concerns regarding schools re-opening?***

Participant PA expressed her concern regarding all the learners returning to school. Classes had to be split into two. Almost all the grades had doubled. To cope with the extra workload, the rotation system would be used where different grades would alternate their attendance. She added the following:

"Definitely, our staff complement will be significantly reduced as there are some teachers with comorbidities."

Participant PB indicated that her biggest fear was that the learners might be afraid to disclose their COVID-19 status, thereby putting everyone at risk. She also expressed the need to know how to handle a situation if a learner tested positive and the procedures that would take place thereafter.

Participant PC expressed that he was afraid that when all the students were back at school, there might be positive cases coming to the school. He explained further by saying:

"We have social distancing in place, but my biggest fear is that if we get a positive case, then there is a lot of preparation to get the school clean again and the biggest concern is that other learners can be affected by that COVID-19 case."

- ***In your opinion, what can be done to put your mind at ease?***

Participant PA had the following suggestion to make:

"As a start, the department should bring us mobile classes. They should also increase the number of teachers and toilets because that is the biggest fear that we have."

The participant further indicated that although they had running water, it was not enough. The sanitation facilities were definitely not enough. She added the following concern:

"Under COVID-19 rules we are not really safe. The Grade R's are using toilets for the older children. It is not safe for them. They are exposed to things that are not meant for them."

Participant PB indicated that the school would put into place a rotational roster to cope with the additional classes that were a result of the decreased class sizes as per the social distancing mandate. More teachers were required. She had this to add:

"It's going to be a challenge. My biggest fear is not being able to complete the curriculum. Also, Grade 4's will be only attending in August after a five-month long break."

Participant PC indicated that everyone must heed the president's call to stick to the rules:

"Stay calm, stay clear, and stay clean!"

4.3.4 Focus groups interview data

The focus group interview stratagem revolves around the supposition that group interface will be beneficial in expanding the variety of responses, triggering forgotten aspects of experience and liberating reticence that may otherwise discourage participants from disclosing information. The discussion is around a particular topic where even conflict and debate are welcomed (Maree et al., 2016: 95).

Table 16: Profile of focus group participants

Participant	Rank	Gender	Ethnic group	Age	Qualification	Years of exp.	Grade taught
TA1	Teacher	Female	Black	58	SPD & BT	28	7
TA2	Teacher	Female	Black	54	SPD	12	7
TA3	Teacher	Male	Black	53	HED & BA	16	7
TB1	Teacher	Male	Indian	34	B Com	7	12
TB2	Teacher	Male	Black	50	B Ed (Hons)	18	7
TB3	Teacher	Female	Indian	36	B Ed	15	7
TC1	Teacher	Female	White	26	B Ed	4	7
TC2	Teacher	Female	Black	32	B Ed	5	7
TC3	Teacher	Female	White	23	B Ed	1	7
TC4	Teacher	Female	White	59	B Ed	8	7
TC5	Teacher	Female	White	52	B Ed	22	7
TC6	Teacher	Female	White	38	B Ed	4	7
TC7	Teacher	Female	White	63	THED & ND	27	7
TC8	Teacher	Female	White	23	Student	1	7

At the three research sites, 14 teachers participated in the focus group interviews that were guided by the research schedule. The responses to the structured questions as per the interview schedule are summarised below:

- ***Are you satisfied with the physical resources at your school? If not, why not?***

School A

All three teachers at School A unanimously agreed that the physical resources at the school were unsatisfactory and inadequate. This was communicated both verbally and non-verbally. The rooms at the school had to be adapted to suit the needs of the school. Some of the responses were as follows:

TA1

"For example, where we are currently sitting is supposed to be the HOD's offices, but we are stocking some of the things here as a storeroom. The same is for the teachers' staffroom."

TA3

"For example, the children's food is stored in admin offices. The kitchen is a shack."

TA2

"We have a kitchen, but it's usually broken into. The admin block is a classroom. The staffroom is a classroom."

The teachers also indicated that the school was part of the feeding scheme, and that 700 meals were prepared for the learners. There were no sinks, cupboards, essential utensils and spices in the kitchen. There was no sink in the staffroom as well. The toilets were also not enough. Although the school was established in 2003, the major infrastructure was still lacking. Classrooms lacked bare necessities like sufficient desks and chairs, and cupboards. There were two non-functional smartboards at the school as well as a projector that was never used.

The floors, which were made up of vinyl tiles, were also dilapidated and worn out. There was also a shortage of textbooks. In addition, there were no heaters or fans to accommodate extreme changes in the weather:

TA1

"Those classes are very cold."

The school did not have sporting facilities nor a hall. All assemblies were carried out in the open and if the weather was inclement, no meetings could take place. This also applied to parent-teacher meetings as well.

School B

TB1 had the following to say about the resources at the school:

"Personally, I am not satisfied; they are not enough."

The resources specifically alluded to were books and equipment. TB2 stated that she would like more reading books. TB1 further indicated that students did not have the necessary stationery as well. Apparently, the school issued students with a stationery resource pack upon payment of the registration fees at the beginning of the year. The indigent students who could not afford to pay this fee did not have a resource pack.

School C

TC1 responded by saying that she was not completely satisfied with the resources at the school and elaborated as follows:

"With regards to technology, we are a little bit behind, this is the 21st century and we also need to set an example for our children."

She further explained that there were insufficient finances from the school's side to rectify the dearth in computers and smart boards, which would have contributed to the school becoming a part of a paperless society. Shortage of essential textbooks was another major issue at the school.

TC2 indicated that in her Life Skills subject, with specific reference to Art, the parents were unable to provide their children with the requisite art supplies. She clarified by saying:

"The school is not supplied with any art supplies."

School C gave each teacher a budget of R3000 per annum to buy miscellaneous items for all the classes that they taught but this amount did not go a long way

- ***In what way(s) are the resources or lack of resources affecting your teaching experience?***

School A

The teachers concurred that it was exhausting to teach their classes because there was no table or chair for the teacher. You had to stand for the whole hour. There was no computer for the teachers as well.

School B

TB1 explained that those students who did not have the necessary resources wasted a lot of time in class as they tried to catch up with the lesson. Some students could not follow the lesson as well. He elaborated by stating the following:

"With this COVID-19 thing, they are not allowed to share."

School C

TC1 explained that there were no new textbooks received each year. The school used to photocopy the textbooks as a measure to address the deficits. However, this was not always effective especially with the creative arts as the colourful visual aspects were lacking. Children needed to see things in colour in the Natural Sciences as well as Mathematics. The Math teacher said the following:

"In Math, to see the graphs, you need to see them in colour."

TC1 went on to say that when the parents questioned the use of photocopied books in the classroom, the financial officer explained that an amount of approximately R3 million was needed to address the problem of textbook shortfalls. It was obvious that

the school did not have this exorbitant sum of money. Parents were not willing to contribute. Books were received but TC4 said that some subjects were still outstanding.

- ***What do you attribute the lack of resources to?***

School A

The teachers indicated that communication via the proper channels was an issue. In addition, follow up was also lacking:

TA1

"A department official came regarding the smart board issue. He promised to return but never did."

Theft of essential school resources contributed to the deficit in the resources. Maintenance of school resources was also a problem.

TA2

"Chairs are being broken because of wear and tear."

TA3

"Vandalism of the school fence is also an issue."

TA2

"They cut the fence and come in to get water."

School B

TB1 attested that the lack of resources could partly be attributed to the lack of co-operation by the parents to pay registration fees timeously. TB3 indicated that the students also damage the textbooks or lose them. Another concern was that not all teachers had access to technological resources.

School C

The reason, according to TC5, for the scarcity of resources was purely a lack of finances as the school fell into quintile 3.

- ***What would you like more of?***

School A

The teachers at School A indicated that they would like more of the following: classrooms, toilets, technology, cleaners, teachers, furniture, computers, and security – basically everything that was lacking at the school.

School B

TB3 indicated that he would like more overhead projectors and smart boards. TB1 also concurred by saying:

"I would like to improve and increase the use of technology in the classroom. This will save time and capture the interest of the learners."

Students that have iPads can access the Internet better, as well as conduct their research. Data should also be made available for both students and teachers alike.

TB3 indicated that it would be nice for teachers to receive laptops as well.

TB2 stated that access to a computer was an issue for the teachers at the school. The work to be typed had to be submitted to the administrative clerk a few days in advance. The subsequent waiting created a backlog. The teachers indicated that they needed more sanitisers and a better way for it to be dispensed in the classrooms. They also said that their workloads had increased because of the classes being split, as a result of social distancing and those who could not offer lessons due to having comorbidities.

School C

The response to this question was met with lots of laughter from all the participants. TC6 indicated that she would like more Afrikaans dictionaries. Other teachers

indicated a need for English dictionaries as well. TC5 explained the needs of the foundation phase section:

“What I can definitely tell you is that we need physical equipment like skipping ropes, tricycles, balls, tennis balls and bean bags.”

TC1 explained that the school had purchased their own jungle gym as the children in this phase needed movement to learn. TC7 indicated that the school also needed supplies for science experiments. TC8 said that there was also a lack of supplies for the Technology subject. Security was also an issue at the school as the office block was frequently targeted by criminals.

- ***How co-operative are the parents when you request supplies to be sent to the school?***

School A

Some of the parents could not afford to send supplies to the school when requested to do so. However, even those who could afford it, still failed to send anything.

TA2

“Very minimal co-operation from the parents.”

School B

According to TB2, the response to the request for supplies varied from child to child. Some parents did not co-operate. TB1 attested the following:

“Students from disadvantaged backgrounds cannot afford to bring supplies.”

TB2 indicated that it was challenging because most of the students lived with their grandparents. The only source of income in these households was the state pension which did not go a very long way. There were more important basic essentials to take care of. School supplies were not on the priority list. Survival came first.

School C

TC1 replied by saying that the children were using scrap material for their projects. The parents could not afford to buy what the children needed for their tasks. She elaborated further by saying:

"They use what they can find at home and teachers bring their own stuff from home to assist the children."

- ***What is the impact of the lack of resources on the students?***

School A

The teachers indicated that having access to technology would have made the lessons more interesting and would improve learning. The shortage of textbooks was a major issue because during the pandemic, students were supposed to practice social distancing. TA2 added the following problem:

TA2

"Most of them don't do their work."

Although the school had done its part to ensure social distancing by spacing out the classroom desks; the students themselves contravene this regulation.

School B

The teachers agreed unanimously that the students fell behind in their learning.

School C

According to TC6, when resources were lacking in a particular subject, interest in that subject waned. Time was lost when students were forced to share textbooks. Without the necessary art supplies, TC2 indicated that no new skills could be acquired.

"You are not able to teach them how to paint if you don't have paint."

The teachers agreed that assessments were also impacted as projects could not be completed and scheduled testing could not take place.

- ***What is your school doing to address the dearth of resources?***

School A

The school was no longer allowed to ask the learners for money even though it was a minimal amount of two rands. The status quo had to be maintained. The teachers improvised by making copies whenever they could.

School B

There is stocktaking of textbooks. There is a control sheet to keep track of the books.

TB1 responded by saying the following:

"With me, I would say that about 90% of the textbooks are returned."

The deficit in the return rate affected the school adversely in the following academic year because with the higher enrolment figures, there were always shortfalls. New requests for textbooks were only fulfilled by the second or third month of schooling, if not later. The challenge of textbook scarcity had been aggravated by the COVID-19 situation because sharing was no longer permissible.

Although all the teachers were requested to submit a budget plan annually, there was no guarantee that they would receive the requested items as the focus was on acquiring the school's priorities.

School C

The school managed the shortage of resources by giving each teacher a class budget. According to teacher TC4, the school also relied on sponsorships. The school had a few fundraising initiatives as well.

- ***What are your recommendations for alleviating the problems associated with the scarcity of resources?***

School A

Teacher A2 responded by saying the following:

"The issue begins with the levels of communication. You send something to the circuit, you have to "via", you know. If that can be improved, then yes."

The department had to fulfil promises made but because there was no monitoring or follow-up, nothing came from reporting the issues. Some of the school's toilets were built by the taxi association because the department failed in this regard.

School B

TB1 responded by saying:

"They have to be given a guideline to re-prioritise the buying of resources. Some resources are purchased by the school."

It was also indicated that the procurement of resources was a long and lengthy process because it had to follow the correct procedures.

School C

TC1 was of the opinion that the main problem was communication with the education department:

"You must be prepared to wait three months or longer before you receive an answer. I have a problem with that. The top does not know what is happening here at the bottom."

Communication and feedback from the circuit office was also lacking in many respects. There was also a delay in receiving the necessary PPE in preparation for the re-opening of the schools. TC3 said that classrooms were also needed as the Wendy house and the hall were being used as classrooms.

- ***How did you cope with the closure of the schools from 17 March 2020?***

School A

There was no communication with regard to what was going on. The teachers had to rely on reports in the media to keep abreast of what was going on. Teacher TA2 stated the following:

"We just stayed at home."

Some staff members attended the COVID-19 workshops to prepare for the re-opening of schools. Two teachers had also attended a COVID-19 workshop on compliance.

The principal of the school conducted the workshop at school for those who had not attended the workshop organised by the Department of Education.

School B

The teachers unanimously agreed that all the curriculum goals could not be achieved as planned.

School C

TC1 reported that the school utilised their D6 platform to carry on with work. Students had access to the homework posted here. This method of communication, however, did not prove to be effective as the parents did not have data. TC explained further:

"Some parents are not registered on this app because they need data."

TC1 explained that resource packs were handed out to the parents for the children in the foundation phase as a back-up plan for those who did not have data.

- ***What strategies have been put into place to catch up on teaching due to the COVID-19 pandemic?***

School A

The school did not have catch up programmes in place to address lost teaching and learning days. This has resulted in learning gaps.

School B

TB3 indicated that the school had a WhatsApp group for the matric students. This platform was used to post additional questions and study materials. However, for Grades 1-11, besides extra work and homework when they eventually returned to school, nothing else was done. TB1 stated:

"For three months nothing was done."

School C

The teachers agreed that the Grade 7 students were on par with their work. TC3 indicated that the Grade 6's were behind in the curriculum. With regard to Grades 4 and 5, their curriculum was reduced. The biggest concern was with regard to the Grade

4 students who only attended school for two weeks after the lockdown ended. TC1explained further:

“The Grade 5’s only attended school for four weeks.”

The teachers also expressed their dissatisfaction with regard to the lack of monitoring by the department to ascertain how the schools were coping. It would seem like the schools were left to their own devices. Only in Afrikaans was an inspection and monitoring done.

- ***Are these strategies working? If not, why not?***

School A

The teachers concurred that their attempts to address the academic needs of the students during the lockdown period were unsuccessful. Teacher A2 explained some of the challenges experienced by the teachers to attempt any sort of strategy to address this issue:

“One of the teachers proposed a WhatsApp group for the parents, but we discovered that some of the parents’ phones were not working.”

Another issue was the problem of data. A lack of co-operation on the part of the students was also a challenge as those who had received the work failed to complete it. Only a few students in Grade 7 were ready to progress to the next level.

School B

TB3 gave the following reason for the WhatsApp strategy being ineffective:

“It was not effective because they did not have smartphones or data. It was more of a supplementary issue.”

In addition, there was no way of follow up what had been provided. It was also indicated that there were extra classes for the students in the afternoons and on weekends for the matric students. TB3 said the following:

“The response to this was good.”

School C

The teachers at School C also mentioned that access to smartphones and data prevented the intervention strategies from being more effective. The teachers wished that they could have interactive lessons in a virtual classroom set up. TC1 clarified the situation further:

"Most of our learners are from the location (township). Even if you supply that child with a tablet or a smartphone, that child will not have that tablet a week later."

The general consensus was that the low socio-economic status of the parents was the main debilitating factor.

4.3.5 Documents

To shed light on educational inequality on access to physical resources, it was necessary to examine some official school documents. However, due to the coronavirus pandemic and the issue of personal safety, the researcher could not spend as much time on this data collection strategy as she would have liked. The information gleaned from the documents was to ascertain comparatively; firstly, how the schools actually differed from each other in terms of access to physical resources. Secondly, the purpose of this information was to establish if educational inequality was evident in these schools and in what areas. Thirdly, this vital information needed to be brought to all the relevant stakeholders so that something constructive could be put into place to address challenges that could be resolved with minimum effort, yet it could have far- reaching consequences for all those affected. The evidence should be able to speak for itself.

What was essentially in black and white would stand the test of time, and it would validate the dire situation on the ground. If audits seldom took place at these institutes of learning, there was no way for the relevant officials to keep tabs on what was needed.

The administrative staff at the three research sites graciously shared the following information:

Table 17: Summary of document analysis

Aspect	School A	School B	School C
School enrolment	771	1540	323
Number of cleaners	3	5	3
Number of teachers	17	49	20
Learner-teacher ratio	45	31	16
Actual class sizes	40-58	42	8-15
School fees	No fees	R2600-2800 pa	R880 pm
Percentage of non-payment	N/A	17%	30-40%
Number of girls	403	784	153
Number of toilets (girls)	9	16	5
Number of boys	368	756	170
Number of toilets (boys)	6	16	3
Number of classrooms	16	46	17
Sanitising of classrooms	Twice a day	Once a day	Thrice a day
Science/Biology laboratory	No	Two	No
Computer rooms	No	Two	No
Sick room	No	Two	1
Sporting amenities	No	Yes	Yes
Sports field	Outside	Yes	Yes
Meeting hall	No	No	No
Staff room	No	Yes	Yes
Laptops for teachers	No	No	No
Wi-Fi/Internet access	Only for admin	Only for admin	Only for admin
Smart boards	Not working	Two	No
Library	No	No	No

4.3.6 Themes and sub-themes

After the interviews were recorded, they were transcribed verbatim. The questions and answers served as a guideline to sift through the humungous pile of information. The researcher made use of coding to narrow down the information from superfluous chunks into manageable bits. Coding is the process of reading carefully through your transcribed data, line by line, and dividing it into meaningful analytical units (Maree et al., 2016:119).

The researcher first looked at the individual interview responses. There were three data sets here because there were three case studies. The researcher looked at each participant's response to each of the questions and formulated a keyword which succinctly summarised the response. Moreover, the researcher looked for duplication and overlapping. The codes were then grouped to arrive at a category. The same method was used for the focus group interviews as well.

Once all your codes have been saturated, the various codes can be categorised into a system to help make sense of the data. A category is a group of content that shares a commonality. It is important to place one's qualitative findings within a context of previous theory and research findings (Maree et al., 2016: 119). This was exactly what the researcher did. Sub-themes (codes) were grouped under a broader heading (themes or categories).

To reiterate, categories or themes are entities comprised of grouped codes. A single category is used to give meaning to codes that are combined. The categories represent major ideas that are used to describe the meaning of similarly coded data (Maree et al., 2016: 404). The researcher read through the data multiple times to arrive at the codes and categories. The categories that emerged were related to the questions that were related to the objectives for the study. In this way, cohesion was ensured which was necessary to bring everything together.

Table 18: Themes and sub-themes

Themes	Sub-themes
Lack of physical resources	Ablution facilities Additional classrooms Security Science laboratories Technological equipment Learner support material Sporting facilities Library
Impact on teaching	Low teacher morale Creativity and spontaneity stifled Lack of job satisfaction
Impact on learning	Knowledge content gaps Lack of essential skills Insecurity
Factors contributing to resource deficits	In-school factors: Funding Communication Wear and tear Lack of monitoring
	Out-of-school factors: Lack of community involvement Theft and vandalism Low socio-economic status
Education during COVID-19	Health and safety Intervention strategies

4.4 DATA INTERPRETATION

The purpose of qualitative research and data analysis is to get to the essence of the phenomenon that was the object of the research. Where data analysis consisted of the process of breaking data into smaller bits of meaning, units were coded and categorised into a specific system. We now need to move towards synthesis where the findings are put into a logical and well-ordered structure that will reveal the essence of the phenomenon being studied (Maree et al., 2016:120).

4.4.1 Lack of physical resources

4.4.1.1 Ablution facilities

All three schools reported an alarming shortage of toilets for both boys and girls. This was a serious issue as the hygiene of all students should be a top priority in every school, more especially now during the COVID-19 pandemic. Unclean, over utilised sanitation facilities were potential breeding grounds for all kinds of diseases. There was a vast discrepancy in the number of toilets for the students at all three schools. In School A, there were 403 girls and nine toilets, which was an average of 44.7 girls per toilet; in School B, there were 784 girls and 16 toilets, which was an average of 49 girls per toilet, and in School C, there were 153 girls and five toilets, which was an average of 30.6 girls per toilet. Furthermore, in School A there were 368 boys and six toilets which was an average of 61 boys per toilet, in School B there were 756 boys and 16 toilets which was an average of 47.25 boys per toilet, and in School C there were 170 boys and three toilets which was an average of 56.6 boys per toilet. The participants in the study indicated that although enrolment figures continued to escalate every year, physical resources like the number of toilets remained the same. The wear and tear on these facilities was enormous.

At School A, the Grade R students used the same ablution facilities as the older students. They desperately needed smaller toilets designed for them. This was an unhealthy situation for them. Moreover, the Grade R students at School B used the same toilets as the foundation phase students. This disparity will have far-reaching consequences for these impressionable little ones in School A in the long run.

4.4.1.2 Additional classrooms

At all three schools, there was evidence of capacity problems. At Schools A and B, portable structures were observed, while School C used a Wendy house and the school hall as classrooms. Overcrowding was the norm at both Schools A and B, with an average of between 40–58 and 40–42 learners respectively in a class. The teachers at School A also indicated a dire shortage in the number of desks and chairs as well. An increase in the number of classrooms also required an increase in the number of teachers and furniture. Educational inequality was evident here in respect of school C where the class sizes varied from 8 to 15, which seemed unfair compared to the other two schools. This was a direct result of the high school fees charged and the teachers employed in SGB posts.

In 2007, the Education Laws Amendment Act (No. 31 of 2007) was promulgated. The main aim of this Act was to provide for minimum norms and standards for infrastructure and capacity in public schools. The norms mandate the Minister to prescribe by regulation minimum norms and standards for school infrastructure and capacity of a school in terms of number of learners a school can admit and the provision of learning and support material (Sayed, Kanjee & Nkomo, 2013:388).

4.4.1.3 Security

At Schools A and C, the issue of security was a cause for concern. The location of School A contributed to the anxiety around security since it was in the heart of an impoverished community. Although the school was fenced, break-ins at the school were common. All the computers at the school had been stolen and food meant for the children as part of the feeding scheme was frequently stolen. Vandalism of school property was also common. The school did not have the funds to repair the damages or buy new resources, nor afford a full-time security guard either. The playground adjacent to the school, which was the school's property, was frequently used as a community play area. People that used this area as a soccer field regularly cut the palisades to retrieve the ball that had come over or for them to fetch water. At School A, grade R students used the same ablution facilities as the older students. This in the

researcher's opinion was a very serious potential threat to their personal and mental safety.

At School C, the issue of theft was similar but not as pronounced. This school also could not afford to pay a full-time security guard. According to the teachers, the office administration block was often targeted. A higher need on Maslow's hierarchy of needs is the need for security. The students and teachers did not feel safe at both Schools A and C.

4.4.1.4 Science laboratories

Both Schools A and C did not have access to science laboratories. This essential resource was necessary to stimulate interest in science from an early age. School B was in a better position because of the school being upgraded to a Mathematics Science Technology Academy. This upgrade ensured that the school had the necessary Science resources and supplies as well. The area of science is neglected at the majority of our schools. In a study by Smith, Trygstad and Banilower (2016) on the issue of the unequal distribution of resources for K-12 Science instruction, the findings revealed that students, who were exposed to well-equipped facilities, were able to participate in and experience hands-on laboratory activities that significantly enhanced the understanding of vital concepts, key to understanding Science content. Moreover, it should be enforced at a young age, in the right environment with adequate supplies and equipment.

4.4.1.5 Technological equipment

In the digital age that we live in, the digital divide had never been more prominent now than ever before as a result of the global COVID-19 pandemic. Schools and companies were attempting to go the digital route to keep abreast of current worldwide trends. Online schooling and virtual classrooms were far from our shores if we took a closer look at what was lacking in our schools. The problem was prevalent in the low socio-economic status, middle socio-economic status and high socio-economic status environments as well. Schools A and C did not have computer laboratories or access to smart boards. School B had two computer laboratories because Computer

Applications Technology (CAT) was offered to the senior students. Schools A and C could not afford to buy essential computers and all the other requisites as well. Using technology in the classroom could have a significant impact on how students learn.

At all three schools, neither computers nor laptops were available for the teachers' personal use. Having access to a printer or the Internet was not an option either. These resources were essential for every educator and could have had a significant impact on the way a teacher delivered relevant content and the way some students learnt. Waiting for administrative staff to type and print worksheets and tests caused unnecessary delays. It also prevented teachers from displaying their creativity and spontaneity in the classroom. Resorting to traditional ways of teaching could stifle students' interest in the subject as well as cause teachers to stagnate professionally.

4.4.1.6 Learner support material

The most significant dearth of learner support material at all three schools was essential textbooks, particularly as this became the most valuable resource during COVID-19. Shortfalls reported to the relevant authorities took months to be addressed, if at all. Students had to resort to sharing books. This was not possible to enforce in the classroom because of the social distancing protocol for health reasons. The schools that could afford to, were able to photocopy the textbooks, thereby contravening copyright laws. This has had a significant impact on the students' learning as many of them who did not have a book failed to complete class tasks or the homework set. The result was that these students lagged behind. Furthermore, the scarcity of textbooks affected teaching as well. In the time of COVID-19, with the frequent disruptions in normal schooling, teachers were under pressure to fulfil curriculum obligations within a restricted period. However, they were compelled to slow down the pace of teaching to afford those without books an opportunity to catch up. At the end of the day, it was frustrating for everyone. Students could not do extra work to meet the curriculum goals as they did not have the relevant textbooks.

The lack of essential materials to deliver Science content was apparent in both Schools A and C. Science could have been the most exciting subject at school – with

the right equipment and supplies, abstract concepts could have been made concrete in the form of experiments (which could seem as if magic was happening right in front of you). Interest in the area of science needs to be kindled at a young age. At the school where the researcher taught, the school had an annual Science Fair. Students from Grade 1-12 were involved. It was actually a highlight on the school activity calendar. A theme was selected for each grade. For example, the theme for the Grade 3's was energy. Some classes chose electrical energy or mechanical energy, etc. The researcher chose solar energy for her class. She had a computer in her classroom, a smart board and unlimited Internet access. The researcher sourced information from the Internet regarding simple experiments on solar energy. She narrowed the experiments down to five and thereafter split her students into five groups. The best Science student in each group was chosen as the leader of the group.

The researcher printed the experiment for each group and handed it out to the leaders. Each group had to make posters and decided on everyone's responsibility on the day of the Science Fair. Poster boards, paint, glue and other necessities were supplied by the school as per the list that each class teacher had to submit in lieu of materials for the Science Fair. The students practiced the experiments at home under the supervision of an adult. The Science Fair took place annually on a Saturday so that the parents could attend. What an amazing experience it was for the researcher as it was her first ever Science Fair. She provided guidance to the students during the Science lesson in preparation for this day.

The researcher prepared the décor related to solar energy. The day before the fair, each class was given their spots. All the décor and furniture that was needed had to be taken care of in advance. To say that the researcher was apprehensive is putting it mildly, but she need not have worried. The students also went the extra mile by coming dressed in white laboratory clothes. They fit the part of the young scientist perfectly. The students presented and explained their experiments with ease and confidence. Their posters looked amazing, and the spectators were suitably impressed. The students had built a solar oven, a simple solar updraft tower, and a desalination still among others. The researcher could not believe that these students were between 8-9 years old. All the display stands looked fabulous, and the experiments performed were mind blowing. This is an example of how, with the right

resources, one can stimulate an interest in and a love for science. The students, teachers and patrons who attended were impressed by the efforts from each class. The feather in the cap for the researcher, as a novice, was winning the first prize among all ten Grade 3 classes. The researcher must emphasise that parental involvement and support from management were vital to the success of this day. In the right environment with all the necessary supplies and support, students can reach for the stars.

School B recognised the importance of science as a subject. Despite having two Science laboratories for the senior students, the teachers expressed the need for a third laboratory for the juniors. They had realised the importance of triggering interest in science from a young age. This entrenched the educational inequality construct even further as Schools A and C did not have a single Science laboratory at their disposal.

The teachers at all three schools reported that they lacked essential resources for both Art and Technology. These were practical subjects that required students to work with their hands to do things and build stuff. Without the requisite supplies, the students could not learn new skills and understand abstract concepts better. This had serious implications for both teaching and learning. The nature of the subject was now forced to take on a more theoretical slant, which directly affected the students' understanding of vital subject content. This, according to the teachers, caused the students to lose interest in the subject and to find it unstimulating. Another downside was that those students that were gifted with working with their hands lost out on the opportunity to nurture, showcase and develop their talents. Educational inequality was further evident in Schools B and C where the school and the teachers occasionally pitched in and bought what the students required. Sometimes the parents contributed as well. However, the same could not be said for School A that served an economically disenfranchised community.

Mtwesi (2016) asserted that to restore a modicum of equality to the majority of schools, the following needed to be put into place as soon as possible: There should be sufficient numbers of suitably trained and skilled educators, principals and other essential staff members in every school every day; sufficient and accessible

infrastructure for all students; appropriate instructional material for both students and learners alike, and lastly; realistically manageable class sizes.

4.4.1.7 Sporting facilities

Education should target the development of the whole child. Academic learning is important but needs to be supplemented by extra-curricular activities as well so that the students are healthy in both body and mind. Disparities were noted in varying degrees in respect of sporting facilities and equipment across all three research sites. At School A, the terrain around the school buildings was uneven and unsafe to be used as play areas or for sport. The school had a makeshift soccer field outside the school. The pitch was sandy and uneven. As a result of this area being unfenced, it was regarded as a public domain that was utilised by the community at large. The teachers were enthusiastic about sport and trained their students for athletics in the dusty streets. This did not prevent the school from participating in zonal athletic events against other schools that had every sporting code, the requisite equipment and suitably trained coaches imaginable.

School B had soccer fields and netball courts but lacked the necessary equipment for all sporting codes. The situation was similar for School C, which had their sports grounds a kilometre away from the school. Sport is a vital component in a child's development. School A was severely handicapped in this regard. This was also more prominent with regard to the Grade R's who did not have the necessary facilities to learn through play.

4.4.1.8 Library

A library should be a standard feature at any place of learning. How can a love of reading be kindled in the students without this vital resource? Schools A and C did not have libraries at all. At School B, the library was used as a classroom. The importance of having access to reading material for pleasure and academic purposes cannot be emphasised enough. Reading helps students to develop their vocabulary, stimulate their imagination, and hone their writing and comprehension skills as well. Most of the

students came from indigent households and would thus not have had access to appropriate reading material.

At the school where the researcher taught, the school implemented the SOAR (Simply Open and Read) programme for Grade 1-12 learners. The parents were given a reading log to track their child's reading progress at home. The date, title of the book, and number of minutes read had to be completed and submitted to the school. The SOAR reading log accommodated for about eight entries per page. Parents were required to append their signature next to the minutes read. The completed reading logs were submitted to the class teachers who drew up a composite sheet of the total minutes read by the class as a whole. The teacher kept track of the student who had read the most. The teachers also regularly updated the minutes on a board outside the classroom. At the beginning of the year, each teacher set a reading target, which was displayed prominently outside the classroom. All the classes competed against each other. The student could fill in as many reading logs as possible. There was a healthy spirit of competition that prevailed. To maintain the integrity of this process, teachers randomly selected a reading log, and asked that particular student to give the class a synopsis of a story read.

`The school also had an annual Dr Seuss Day where the students came to school dressed as any character from the Dr Seuss range of books. They also brought their favourite Dr Seuss book and during the English lesson, they gave the class a short synopsis of the book. Once again, the researcher reiterates that the students in her class were between 8-9 years old. This was how the school tried to inculcate a culture of reading at the school. Every class also had a mini library at the back of the room. Students spent their free time if they had any, with reading. Furthermore, to stimulate awareness of spelling, the school hosted a Spelling Bee competition annually.

In her study on why the number of Black and Coloured students graduating from university was low, Mtwesi (2016) uncovered that a number of schools were still severely under-resourced. The Department of Education's National Education Infrastructure Management System Report (2015) indicated that of the 23 589 public ordinary schools:

- 1 547 schools were unfenced, and 58 others had undependable fencing
- 9 966 schools were without sporting infrastructure
- 181 schools lacked communication facilities
- 18 150 schools were without libraries and 3 287 schools that had libraries were inadequately stocked
- 15 984 schools lacked computer centres
- 20 312 schools were without laboratory facilities

4.4.2 Impact on teaching

The teachers indicated that staff morale was generally low, as they felt frustrated by the lack of resources at the school. They did not even have the basics to work with. They had to rely heavily on textbooks which were in short supply. Not having access to digital technology in the classroom stifled their creativity, spontaneity and enthusiasm. Lessons became dull and boring. This has led to them feeling dissatisfied with their jobs. They expressed the importance of having access to a computer and other equipment to liven up their teaching.

4.4.3 Impact on learning

Students who did not have textbooks could not complete any additional tasks given as homework. They delayed the teaching process in the classroom as they scrambled to copy notes from the other children. When it came to assessments and tasks, they generally did not fare well. This state of affairs contributed to knowledge content gaps. It also caused them to lose interest in the subject and ultimately in school itself. Moreover, students who did not have access to Art, Technology, Computer, Library, Science and Technology supplies lost out on the opportunity to acquire much needed skills. Reading and comprehension were also affected. Furthermore, when some students felt insecure at school, they resorted to staying away, thus compounding the issue of knowledge and skills gaps.

4.4.4 Factors contributing to resource deficits

4.4.4.1 In-school factors

The in-school factors that contributed to a dearth of resources at the schools sampled can be narrowed down to the following: funding, communication, wear and tear, and lack of monitoring. These are discussed briefly below:

- Funding

To address the inequalities of the past with special reference to education, the new government came up with the quintile ranking of schools to ensure that parity was restored. If a school was in quintile 1, like School A, it meant that control of this school was centralised from the provincial government level. The provincial government would be solely responsible for the running of these schools, in terms of funding and resource provision. The SGB would assist with the management of the school. The community that these schools served were literally the poorest of the poor. Therefore, these schools were essentially “no-fee” paying schools, which were also part of the national school feeding scheme programme. In this way, government ensured that every child had access to schooling and was adequately nourished. Although the provincial government, together with the SGB, were responsible for these schools, there was a dire shortage of resources at these centrally managed schools – from physical structure deficits to learner support material deficits.

Maslow’s theory of needs indicates that basic needs like access to food, water and education take precedence over other needs. School A addressed these needs satisfactorily, however, as Makhanya (2015) reported, “Accessibility was the idea behind non-paying schools, especially for the extremely impoverished and the parentless. Throngs flocking into schools resulted in resources coming under pressure.” This certainly held true for School A. Furthermore, a study by Mestry and Ndhlovu (2014) looking at the implications of the National Norms and Standards for School Funding (NNSSF) policy on equity in South African public schools discovered that despite substantial government interventions in the education system, equity had

not been fully realised. The teachers sampled in the study, especially in the not so well-off schools, indicated that physical resources supplied were insufficient.

Section 21 schools were given autonomy by the education department to operate from a decentralised standpoint. These schools were provided with a paper budget which took care of a few operational expenses incurred by the school. To ensure that other essentials were taken care of, these schools charged school fees, which was more than what learners from disadvantaged backgrounds could afford. Both Schools B and C fell into this category. Although comparatively, both these schools were better resourced in terms of physical infrastructure as compared to School A, it would seem that the deficits affecting School A were common to the other schools as well. Differing levels of educational inequality on access to physical resources were evident in all three schools, irrespective of the socio-economic status of these environments.

To supplement the basic funds provided by the Provincial Department of Education to section 21 schools, these schools have had to be proactive to source more funds in order to be able to run these institutions optimally and attempt to deliver quality education. The driving force behind fundraising initiatives in School C was the staff members themselves, with minimal input, co-operation, and assistance from the parent community and the SGB. Ndimande (2016) explained that previously White only schools continued to make great educational strides because of the high school fees they charged and innovative fundraising initiatives. This was, however, not the case in the poor areas. These and other factors have contributed to many township schools being under-resourced. The subsequent inequality was as a result of a determined and concerted effort by section 21 schools to remain functional as best as they could.

- Communication

All three schools unanimously concurred that the reason for the scarcity of resources at their schools could be directly attributed to the challenges of communicating their needs to the right section in the Provincial Department of Education. Protocols were followed correctly, as the requests were put through via the relevant circuit office. It

literally took months to get a response or feedback while in the interim teachers and students were sitting without the basic necessities.

- Wear and tear

Overcrowded learning centres end up having facilities and equipment coming under enormous strain. School A reported that desks and chairs were frequently broken as a result of overuse. The vinyl flooring was damaged because of the huge classes. The school did not have the necessary funds to regularly amend and repair broken facilities, which resulted in even more damage in the long-term.

- Lack of monitoring

Another factor that continually entrenched educational inequalities at the three schools sampled was the issue of departmental monitoring. School C reported that in nine years there was no monitoring by the Department of Education at all. School A indicated that even if a monitoring visit took place, there was no subsequent feedback or follow up visit. Schools A and C felt like they were left to their own devices. Therefore, with each passing year, the resource deficit list got longer and longer.

4.4.4.2 Out-of-school factors

The out-of-school factors that contributed to educational inequities are lack of community involvement, theft, and low socio-economic status. These are discussed briefly below:

- Lack of community involvement

Due to fundraising initiatives by the school, School C was in a position to help manage the crisis somewhat, whereas School A had to wait for the department to respond to their cries for help. Regarding the issue of theft of school supplies and vandalism at School A, the community members could assist. Those situated in and around the vicinity of the school could be more vigilant and others could form a community policing forum to safeguard the remaining resources at the school. Additionally, those who were able, could volunteer to help fix the school. This was how educational inequalities became entrenched, especially when the community served by the school failed to take ownership of the school.

- Theft and vandalism

The theft of school resources was a major contributing factor when it came to the scarcity of resources at School A. An entire computer laboratory was looted, leaving this school incapable of providing much needed computer skills to the students. Deliberate destruction of school property also contributed to the lack of resources at this school.

- Low socio-economic status

The low-socio-economic status of School A's students meant that the parents could not afford to assist the school with much needed resources or supplies. Although this was a no-fee paying school, the community members were in no position to assist financially. Another critical factor was that most of the students were reared by their grandparents whose sole source of income was the meagre state pension. Some students were raised by their siblings who struggled to make ends meet. Holborn (2013) indicates that the lack of parental participation and socio-economic status are some of the factors that are at the root of the educational crisis in South Africa.

4.4.5 Education during COVID-19

4.4.5.1 Health and safety

Although the schools looked promising in terms of the health and safety protocols being in place to counteract the spread of the coronavirus disease, the researcher was only present at the research sites when there were a few students. The concern expressed by all the teachers across all the sites was the deficit of resources that would affect the safety of the teachers and students alike. The mandatory frequent washing of hands as a preventative measure would take its toll on the schools' already limited and overused ablution facilities. The number of cleaners at each site were insufficient to ensure high hygiene standards in the bathrooms. In addition, as a result of the large classes and limited space, social distancing would be a challenge to implement. These challenges could be overcome depending on whether the school

had chosen the platoon or rotation strategy to conduct normal schooling. Staff shortages were also a reality at all three sites.

4.4.5.2 Intervention strategies

In an attempt to address the closure of schools, UNESCO suggested using distance learning measures and open academic applications and platforms that institutes of learning could utilise to access students remotely and restrict the interruption of schooling (Wikipedia). The intervention strategies implemented by Schools B and C to catch up on lost teaching time due to COVID-19 had a marginal success rate. Attempts to bridge learning gaps proved to be ineffective because the majority of the parents did not have access to the device that could put them in touch with the work disseminated by the schools, nor could they afford data, which was necessary to access the additional materials. School B targeted the Grade 7 and 12 students while School C targeted students across all grades. School C did not have any intervention resource deficits.

According to Harcourt (2016), conflict theory essentially regards the function of schooling as preserving societal inequity and sustaining the dominion of those who reign supreme in various cultures. Proponents of the conflict theory see formal schooling structures as being bent on propagating the status quo by deadening the economically disadvantaged rungs of society. What was evident from the empirical findings was that educational inequality on access to physical resources was a phenomenon that was present in the Highveld Ridge East Circuit of Mpumalanga. The disparities came across in various forms. These inequities were uncovered in the three sampled schools that were a short distance away from each other.

4.5 CHAPTER SUMMARY

This chapter dealt with the data analysis and interpretation of the research findings. The main focus of the research was to ascertain how educational inequality manifested due to the lack of access to physical resources. The data was collected by means of observations, individual face-to-face interviews, focus group interviews, and documentary analysis. Observation of the three research sites contributed to the main

research focus. The individual interviews sought to ascertain the principals' perspectives on physical resources at the school, while the focus group interviews attempted to gauge the teachers' perceptions of the physical resources available at their disposal. An analysis of appropriate documentation supplemented the information gleaned.

In the next chapter, a summary of the research findings will be presented in addition to the research conclusions and recommendations.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The aim of this study was to determine how educational inequality manifested in South African schools post-1994, with particular focus on access to physical resources and to establish how these inequalities impacted on the schools themselves.

The objectives for the research were to:

- Determine the factors that contributed to educational inequality in respect of physical resources
- Ascertain the impact of educational disparities pertaining to physical resources on teaching
- Establish the effect of educational inequality in respect of physical resources on learning
- Determine how well-equipped Mpumalanga schools were in coping with a global pandemic.

A qualitative research approach was used, encompassing a multiple case study design. The phenomenon was investigated from an interpretivist stance. In order to achieve the aim of the investigation, the researcher made use of observations, individual and focus group interviews, and sourced information from relevant documents. The researcher purposively selected three schools in the Highveld Ridge East Circuit of Mpumalanga. These schools had the qualities of a low socio-economic (School A), middle socio-economic (School B) and high socio-economic (School C) environment respectively. To gain a management perspective of educational inequality on the access to physical resources, one principal and two deputy principals participated in the individual face-to-face interviews. Focus group interviews were conducted at all three sites involving 14 teachers who provided an educator perspective on the phenomenon studied. Moreover, relevant documents were scrutinised to cast more light on the schools investigated. All the data sourced in these various ways served to create a more distinct picture of the phenomenon that was investigated.

In this chapter, a summary of the research findings is presented. Thereafter the research conclusions are expounded based on the findings. Suitable recommendations are put forward. In addition, avenues for further research explore areas that could assist to alleviate the challenges associated with the schools studied. Furthermore, the limitations of the study are also discussed.

5.2 SUMMARY OF RESEARCH FINDINGS

This section provides a summary of the research findings.

5.2.1 Key scholarly research findings

To place the phenomenon of educational inequality within a broader context, it was first necessary to establish whether this entity was prevalent within a global framework and if it was, how did it manifest? What follows is a brief synopsis on relevant theories and some of the studies that were conducted which revealed the existing phenomenon of educational inequality. The critical theory (2.3.1) revolved around an educational divide that favoured the affluent and in so doing contributed to maintaining the status quo of the elites. The perception was that schooling helped to preserve societal inequity. Maslow in his hierarchy of needs (2.3.2) contended that the satisfaction of the basic needs (food, water, education) was of primary importance in an individual's existence. Free food and free education had increased school access, however, in so doing this had contributed to gaping educational inequalities within these environments as resources came under strain and were frequently inadequate to cope with continually escalating enrolment figures. A need for self-esteem among the teachers was important but inequities persisted which led to low levels of job satisfaction.

In the USA, as reported by Gamoran (2.4.1.1), children from low socio-economic backgrounds and certain ethnicities struggled at school. In the UK, Machin and McNally (2.4.1.2) reported that children from economically disenfranchised households began their pedagogic journey at a distinct disadvantage because they went to school with contrasts in levels of intellectual and non-intellectual skills. In Ireland, Murphy (2.4.1.3) reported that children in communally and frugally deficient areas lacked material resources and emotional support. Neither did the curriculum

meet the needs of the indigent. The affluent selected trendy schools for positional benefit while the working class were left behind in “sink” schools. Those pupils who had the resources, monetary or otherwise, endeavoured to gain advantage out of the educational system.

In Malaysia, Rao (2.4.1.4) reported that when the resources were dispersed fairly, school excellence across the nation should have been consistent. He contended that an impartial allocation of supplies would lead to superior schools. In Pakistan, Omer and Jabeen (2.4.1.5) questioned whether the private schools maintained the status quo when viewed from Karl Marx’s conflict theory in education. They uncovered that city public schools were characterised by mismanagement of resources like the neglect of libraries, which had antiquated stock, and laboratories that lacked essential supplies and equipment. These schools had non-existent support from technical practitioners. The outcomes from their observations endorsed the supposition underpinning Karl Marx’s theory, that elites maintained the status quo in the education system, as the affluent had more and better reserves.

These examples of educational inequality proved that this phenomenon was prevalent in other nations as well, from developed to developing nations. How did educational inequality come across in the South African context? The examples that follow will help to shed light on the matter. In the Western Cape (2.4.2.1), Van der Berg reported that socio-economic circumstances and inputs of instructional supplies (educators, books, learning aids, etc.) impacted on educational outcomes. Although more money was spent on schools that were previously for Blacks only to redress past inequities, the number of students passing matric were not high enough. Holborn (2.4.2.2) reported that parental participation and socio-economic status were at the root of the education crisis in South Africa. Mtwesi (2.4.2.3) suggested that the focus should be on inputs (existing school infrastructure, the number of written resources on hand and the proportion of students to educators) rather than outputs (economic accomplishments).

Ndimande (2.4.2.4) reported that although the intention of government in advocating school choice as a measure to eradicate segregation in schools was commendable, it had served to entrench deeper disparities among most schools. Previously, schools

for Black people lacked essential finances. Those who could, transferred to previously White only schools, leaving behind the impoverished. School choice had blurred the vital need for the new regime to tackle the problem of insufficient resources that was in township schools. Van der Berg (2.4.2.5) suggested that there should be policies in place to streamline the more judicious use of resources. Sekhonyane (2.4.2.6) reported that students that completed matric at different schools were not all equipped with the requisite skills necessary for tertiary education. The inequitable distribution of supplies was at the core of the problem. Educational institutions with a deficiency of resources were unable to source proficient educators. Libraries lacked essential supplies and laboratories did not have the proper equipment and materials to be fully functional.

The onslaught of the COVID-19 pandemic threw education nationally and globally into a quagmire of uncertainty and confusion. Health and safety protocols were disseminated internationally by the World Health Organisation. South Africa faces challenges in trying to implement the safety measures as stipulated. Moreover, the media had a field day challenging the re-opening of the country's schools (2.5.6.1 and 2.5.6.2) by citing lack of basic resources as an inhibiting factor. Other nations were able to make the transition a little easier with resources at their disposal. Alaska (2.5.5.2) advocated online learning and virtual schools to address their academic needs. Various White Papers (2.6.1) provide guidelines on school resourcing and funding. Education Acts also mandate how schools should be governed, funded and managed. The community survey report (2.7) on education enrolment and achievement indicated that the standard of instruction in South Africa continues to persist in below expectations, especially in the previously marginalised regions. Centres of learning did not even fulfil the essential instructional infrastructure prerequisites such as access to laboratories, libraries, Internet connections and suitably trained and proficient teachers.

To compound matters, the budget for education during COVID-19 was slashed (2.7.1). As reported, the reduction in educational funding will have dire ramifications: existing programmes will be destabilised, overcrowding in classrooms will occur, educators' workloads will increase as no new staff will be employed, and the urgent need for new classrooms will be overlooked. The scholarly review findings proved that educational

inequalities were a persistent feature of both developed and developing economies. Disparities manifested in various forms and appeared to favour the elite while the disenfranchised continued to be destabilised by resolvable basics. Deeply entrenched inequities propagated by the past regime have left its mark on South African education and the biggest challenge facing the current regime was to address and redress these gaping chasms.

5.2.2 Key empirical findings

The phenomenon of educational inequality on access to physical resources was investigated at three purposively selected schools, which displayed varying degrees of similarities and differences. School A was a Black school in the township, School B was a former Indian school, and School C was a former White school. These schools were representational of ethnic diversities and culture. The data revealed that educational inequalities on access to resources continued to persist despite the new government coming into power over 26 years ago. The disparities and inequities were a feature across all three schools in the sample. Imbalances in respect of physical resources were noticed and reported on in the following areas: ablution facilities, additional classrooms, security, Science laboratories, technological equipment, learner support materials, sporting facilities and libraries.

The factors contributing to the various deficits in resources were attributed to in-school and out-of-school factors. The in-school factors were narrowed down to funding, communication, wear and tear and lack of monitoring. The out of-school factors identified were lack of community involvement, theft and vandalism and low socio-economic status. The lack of resources had an impact on both the teaching (low staff morale, insecurity, creativity and spontaneity stifled and lack of job satisfaction) and learning (knowledge content gaps, insufficient skills, helplessness and loss of interest) processes. As a result, this increased the discrepancies between schools that were better resourced and were able to cater to the needs of the teachers and students more effectively.

Education in South Africa had to accommodate the scourge of the COVID-19 pandemic affecting all nations globally, bringing with it, its own set of challenges.

Various intervention strategies had to be put in place to restore education to some sort of normalcy during these uncertain times.

5.3 RESEARCH CONCLUSIONS

The main research question was: How does educational inequality on access to physical resources manifest and what is the impact on teaching and learning? The research conclusions are stated as answers to the initial research questions based on the evidence produced in the study. The sub-research questions are answered first.

5.3.1 What factors contribute to educational inequalities within schools in respect of access to physical resources?

5.3.1.1 In-school factors

- Funding

The funding provided by government to the schools was insufficient to meet the needs of the diverse communities that these schools served. To redress historical injustices, some schools needed a bigger monetary allocation in order to get their infrastructure on par with the rest of the schools. Schools in quintile 1 required a larger share of the budget unfair though it may seem.

- Communication

A lack of communication from the circuit office to the Provincial Department of Education caused uncertainty and delays in receiving feedback on requests for essential supplies and necessary physical infrastructure. Schools were left to their own devices, and subsequently ended up waiting for lengthy periods of time for much needed learner support materials.

- Wear and tear

School resources and physical infrastructure were subjected to enormous strain as a result of some schools being compelled to admit all students. Teachers were

overloaded and overcrowding became the norm. It was not surprising then that breakages were a common everyday occurrence.

- Lack of monitoring

Monitoring of a school's resources and supplies are essential for effective teaching and learning to take place. This ensures that department officials are kept abreast of the deficits in resources and are able to act swiftly to address imbalances. A lack of monitoring leads to resource inequities becoming even more entrenched. School A was the one most recently built (2003) as compared to Schools B and C that were much older. Yet, how was it possible that after 17 years the school still did not have an office block, a staffroom, library or a Science laboratory?

5.3.1.2 Out-of-school factors

- Lack of community involvement

  The majority of the community members failed to assist the school in procuring much needed resources. They also did not comply with requests for supplies to be sent to school even if they could afford to.

- Theft and vandalism

  Frequent theft of much needed essential resources led to the disparities in physical resources becoming more apparent. Wilful destruction of school property compounded the problem of resource scarcity. This was more apparent in school A, which was situated within a disenfranchised community, than anywhere else.

- Low socio-economic status

  The low socio-economic status of the majority of the parents, caregivers or guardians, prevented them from contributing much needed funds to purchase vital resources for the school. Some of them could not even afford to buy basic stationery for their children. This was common in households where children

were reared by their grandparents or older siblings. Their basic need for food and shelter took precedence over what the school may require.

5.3.2 What impact does educational disparities in terms of access to physical resources have on teaching?

In a resource deficient classroom, the teacher became the students' most valuable resource. The teacher had to resort to traditional methods of teaching which could dampen the teacher's enthusiasm. Teacher talking time increased, putting strain on the teacher. A lack of a smart board and Internet access prevented the teacher from accessing the wealth of content available to clarify and explain difficult concepts. The issue of insufficient textbooks forced students to share which was not always ideal and led to discipline issues and students being distracted. In other instances, teachers that could, brought their own projector and laptop to add value to the lesson, thereby causing further educational inequalities. Staff morale dropped and job satisfaction became questionable.

5.3.3 How does educational inequality with a special focus on physical resources impact learning?

Students without the necessary textbooks could not do additional work at home and thereby fell behind academically. It also affected their performance in tests, as they did not have a book to study from. Those schools with the means made copies of the requisite textbooks which were not as effective as the original due to the poor quality of the replication devices. In addition, the lack of Art and Technology supplies prevented the children from learning essential skills. Furthermore, it prevented those that were good with their hands to discover their artistic and creative talents. The lack of adequate Science laboratories, supplies and equipment, hindered the students from performing vital Science tests, which was key to their understanding of the world that they lived in. Furthermore, a school without a library is severely handicapped as supplementary reading and access to a wealth of information found in books could make the learning process fun where children can make discoveries on their own.

Children from the disadvantaged communities did not have access to reading material at home whereas children from the middle and high socio-economic households did have some sort of reading literature. It is vital to inculcate the culture of reading in the students and this should have been initiated from an early age.

Students that attended schools in unsafe environments were more likely to stay away from school for fear of being bullied. They begin to regard school with fear and lose out on many academic days, whereas children attending schools in a nurturing environment, make progress that is more significant. Having Grade R students use the same ablution facilities as the rest of the school exposes them to all kinds of untold ills that could affect their physical and mental health in the long-term. This was the unfortunate plight of the children in the township school (School A).

We are living in a digital era yet the schools that served our communities did not have the necessary computer laboratories to teach the children critical computer skills. Additionally, none of the sampled schools had a sports field or sporting equipment. Children need to be educated through various ways as not everyone is academically inclined. Participating in sporting activities gives children the opportunity to showcase their sporting prowess. The sports field is also the ideal place to teach teamwork and co-operation.

5.3.4 How well-equipped are our schools in terms of resources to cope with a global pandemic?

The lack of adequate ablution facilities is a serious cause for concern, especially during a global pandemic where COVID-19 can proliferate and spread if sanitation standards are not of a high standard. As evidenced, the schools sampled already had enormous strain put on their existing facilities. Unhygienic ablution facilities could be a potential breeding ground for the virus. Furthermore, social distancing as a preventative measure is difficult to enforce in overcrowded classrooms. Platoon classes, rotating classes and splitting classes, causes every teacher's workload to increase as schools are already under staffed due to staff members having comorbidities. As the budget for education had been trimmed (2.7.1), no additions to staff could be made.

Remote teaching was an alternative, but this was difficult to enforce. The catch-up strategies put in place by the schools varied in effectiveness. Those who managed to give additional work via the D6 platform and WhatsApp groups had minimal success due to parents not having smartphones or data. The inequality with regard to access to physical resources was most prevalent in the township school (School A) which failed to implement any effective strategy as the students just stayed away. A few picked up the additional work while others who took the work failed to complete it. South Africa is far from ready to go the distance teaching route as lack of important physical resources makes this near impossible in ordinary public schools. The students and teachers also lack the necessary training and skills to implement a global catch-up strategy like this one.

5.3.5 Main research conclusion

How does educational inequality on access to physical resources manifest in the Highveld Ridge East Circuit of Mpumalanga?

An investigation into the phenomenon of educational inequality on access to physical resources revealed that disparities in educational resources were prevalent in schools within the same circuit located metres away from each other. The inequities were evident in the physical infrastructure of the schools, the capacity of the school and learner support materials among others. These deficits had serious implications for teaching and learning. What the investigation also revealed was how ill-equipped South Africa is in joining the global fraternity to address the academic needs of our students during a global pandemic.

5.4 RECOMMENDATIONS

5.4.1 National level

- Recommendation 1

Increase funding for quintile 1 schools as they experience more challenges. Furthermore, allow these schools to raise funds on their own so that they can become more self-sustaining.

- Recommendation 2

No school be should allowed to exceed the learner capacity. An average of 40-50 students in a class is not practical, feasible or workable.

5.4.2 Provincial level

- Recommendation 3

To assist schools to be more secure during the pandemic, portable toilets and mobile classrooms can help to alleviate the problem of inadequate ablution facilities and over-crowding in classrooms.

- Recommendation 4

All households must be provided with a smartphone and data.

- Recommendation 5

All new schools built must have the following basic infrastructure already in place: sufficient classrooms, adequate ablution facilities for the capacity of the school, a staffroom, an office and administration block, a computer laboratory, a Science laboratory, and sporting facilities and equipment.

- Recommendation 6

The Grade R learners must be separated from the rest of the school. They must have their own appropriately sized ablution facilities and a separate play area.

- Recommendation 7

Channels of communication need to be improved with the circuit offices and the schools under their jurisdiction. There should be a reasonable and realistic turnaround time to respond to requests for physical resources. Requests for textbooks and other learner support materials must be processed at least two months before the end of the

current academic year, taking into account the projected enrolment figures for the following academic year.

- Recommendation 8

The monitoring of schools in respect of physical resources, school supplies and human resource support should be done on a quarterly basis. There should be a distinct paper trail to track what has been done. All records of communication should also be sent out to the relevant schools.

- Recommendation 9

To safeguard resources at the school, a full-time security guard must be paid for. This can help to alleviate unnecessary expenses incurred through theft and damage of school property.

5.4.3 District level

- Recommendation 10

All communication from the provincial department in lieu of request for resources and school supplies must be disseminated to the relevant schools. Feedback must be timeous and continuous. Some powers need to be decentralised to the circuit offices so that they are able to deal with contingencies swiftly and in the appropriate manner. All individuals must be accountable for their actions.

- Recommendation 11

Training in computer skills and the use of digital technology must be made mandatory for all teachers.

5.4.4 School level

- Recommendation 12

All schools must keep accurate records of all requests for resources and supplies to the circuit office. All correspondence in lieu of this must be on record. All resource deficits within the school must be communicated to the circuit office as early as possible. There should be an asset register in place to monitor all supplies and equipment received. This register must be updated regularly.

5.4.5 Community level

- Recommendation 13

Minor maintenance issues can be taken care of by the community members themselves. Those who have the requisite skills can give back to the community in the form of the service that they can offer. This will help the school to use their limited funds for other important issues.

- Recommendation 14

Business people in the community should assist the school in sourcing supplies and equipment that are scarce. Others can initiate fundraising drives to help the school procure much needed funds.

- Recommendation 15

The community needs to take ownership of the school. They can help to form a community policing forum to protect the school's assets from being stolen or vandalised. Those located within the vicinity of the school can help by being vigilant and discouraging vandalism.

5.5 AVENUES FOR FURTHER RESEARCH

Future research may take a closer look at why schools built after 1994 under the new regime still lack essential basic infrastructure. Another area that needs to be investigated is how schools are monitored and how frequently this is done. Lastly, an investigation that needs urgent attention is what happens to a request once it leaves the school, why there are so many delays and why the responses are mostly negative.

5.6 LIMITATIONS OF THE STUDY

The study was conducted in one circuit in Mpumalanga thus the results cannot be generalised to include schools in other circuits or other provinces. Another limitation of this study is that the data was sourced from an area away from the city and had a rural influence. The results could be different for schools in the urban areas. Thirdly, the students were not interviewed to get their perception of the paucity of resources at their respective schools. The teachers communicated their thoughts on the impact of the deficit of resources on learners. Lastly, time constraints proved to be a serious limitation. The data collection process seemed rushed due to the unexpected closure of the schools. The researcher would have preferred to spend more time at each research site but due to the global COVID-19 pandemic, personal safety had to take precedence over prolonged academic pursuits.

5.7 CONCLUDING REMARKS

What an amazing academic journey it has been, and I simply cannot believe that the end is almost in sight. It began just when I secured employment at a private international school abroad. The first year was the most challenging because I had to deal with supervisor issues and was adjusting to the new job. I was teaching the American curriculum for the first time and learning the culture at my new school. Fortunately, I could work better with my new supervisor. Working in a foreign country had an impact on my studies because I had to plan when I could go out into the field only around my vacation time. Therefore, in the second year I concentrated on completing chapters two and three. I knew that in the third year I needed to wrap up. I applied for my ethical clearance certificate and fortunately, after the suggested amendments were done, it was approved. At this time, we were in the middle of the COVID-19 pandemic. Before the virus spiralled out of control, I had planned exactly when I would do field work. Needless to say, I was stuck in Saudi Arabia for two months of my vacation because of the restriction on international travel. When I eventually did get to South Africa, the majority of the schools were still closed. I was also considering not going out into the field purely because of safety reasons.

By the time schools re-opened, I was in possession of the provincial letter of approval to conduct research and the circuit letter of approval too, however, I was still hesitant to go out into the field. Just when I took a decision to venture out, the schools closed again. This made me realise that if I did not go the research sites, I might not be able to at all. The following week I managed to go to one of my research sites that was open and then the week thereafter to the other two. The data collection process went smoothly and was hassle-free. I can only attribute this to the wonderful responses from all the participants and the co-operation from the site managers.

What I have learned from my academic journey is that you can achieve anything that you set your mind to. I have also learned that blessings come in the most unusual forms. After my data collection process was completed, I was supposed to return to Saudi Arabia for the commencement of the next academic year. Once again, due to international travel restrictions not being lifted, I was unable to return as planned. This gave me the extra time I needed to work on chapters four and five which literally took weeks. I realised the value of the extra time that I had because I had so much reading to do. Back in Saudi Arabia, with the school where I taught going fully online for two months, I would not have had the time to collate the information that I had sourced from my research sites.

What a pleasure it has been to teach at an international school abroad. The richness of my foreign teaching experience was offset by my sojourn out into the field. The focus of my dissertation topic was educational inequality on access to physical resources. My venture out into the South African school setting brought home the harsh realities of life. At my school in Saudi Arabia, we started two weeks earlier than the students to get everything in readiness for their return. In the first two weeks of school, we conducted diagnostic tests to gently ease the students into the academic year. Every teacher received all the supplies required for the students for the year from art and Science supplies to pens, pencils, paints and the works. Every teacher received a budget to buy décor for their classroom. I had a computer and smart board in my classroom and unlimited Internet access. I had only 20 students in my class. All the students received all their textbooks and a username and password to access electronic copies of the book. My classroom was cleaned three times a day. I taught Grade 3 learners and had a mini library at the back of my classroom. Every classroom

was decorated according to a particular theme chosen by the teacher. What a pleasure it has been to teach at a school where every physical resource has been taken care of.

We also had two guidance counsellors and four nurses permanently on site. The school had girls from Grades 1-12 while the nursery and kindergarten phase catered for both boys and girls. The school had several computer laboratories and two Science laboratories. There were two floors at the school. Each floor had two receptionists. There was a large cafeteria for the senior girls and a smaller one for the juniors. It was the same with regard to the gymnasiums as well. The play area outside was shaded because of the high temperatures in this region. All areas within the building were fully air-conditioned. One cleaner whose sole job was to ensure that the toilets were clean managed the ablution facilities at every corner. Liquid hand soap was available in the bathrooms. Every class received a box of tissues daily. There were two lifts in the school for the use of staff members. I had never been in a school before that had lifts. The interior of the school was bright and cheerful. Outside every classroom, there were lockers for the students to store their stuff. The atmosphere at the school was warm and inviting. It was conducive to both teaching and learning.

The teachers' lounges had fridges, microwaves and two computers for those who wanted to do work in their non-teaching periods. Every month the reception areas were decorated with material highlighting a particular theme, for example, during anti-bullying month the areas were decorated with purple and white balloons and streamers as well as suitable slogans. The classes that were selected to present something at the assembly during this month had to work on that theme too. There were many fun activities planned by the activity department during the year. There were carnival days (days of games, delicious food and entertainment), pyjama day (teachers and students came dressed in pyjamas, ate delicious snacks and watched movies the whole day), Dr Seuss day (students came dressed as their favourite character from any Dr Seuss book), multi-cultural day (students selected a country that they wanted to showcase by decorating the classroom to reflect that culture, they prepared talks, sang, danced, brought food from that country, and they also handed out souvenirs), Saudi National Day (the whole school was decorated in green and white), career day (students came dressed to showcase a particular career and during their English lesson they did a

presentation explaining more about that career), and they had an informal sports day with non-competitive activities.

Two of the additional academic activities were the Annual Spelling Bee and the Kangaroo Math Olympiad (Grades 1-12) which were conducted online at the school. The students also took a Measure of Academic Progress (MAP) (Grades 2-12) test twice a year, one at the beginning of the year and one in the third quarter. There were two sessions comprising of a two-hour online English test and a one-hour Math test. This test was completed in two parts over two days. There was a healthy balance of academic and non-academic activities at the school. In addition to this, the school was a pioneer school for the Lighthouse Leader in Me programme. Steven Covey's seven habits were used to teach the students leadership skills from a very young age. It was mandatory for every classroom to have the seven habits tree prominently displayed. There were also large posters of the seven habits tree all over the school. The students were also taught the leader in me song and the actions that accompanied the song. Every class teacher had two "Leader in Me" periods on their timetable. We normally taught one habit a month.

I shared my international teaching experience at a private international school in the Middle East with my research participants. I was indeed privileged to have been in a school that had all the physical resources imaginable. Undoubtedly, teacher morale was high, and students loved coming to school. I wish this for every teacher in every school in South Africa.

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APPENDIX A: ETHICS APPROVAL FORM

UNISA university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2020/05/13

Ref: **2020/05/13/31122817/13/AM**
Name: Mrs CR Osman
Student No.: 31122817

Dear Mrs CR Osman

Decision: Ethics Approval from 2020/05/13 to 2023/05/13

Researcher(s): Name: Mrs CR Osman
E-mail address: 31122817@mylife.unisa.ac.za
Telephone: 076 841 6773

Supervisor(s): Name: Dr RI Lumadi
E-mail address: lumadri@unisa.ac.za
Telephone: 012-429 2123

Title of research:

Educational inequality on access to physical resources at Highveld Ridge East Circuit: Mpumalanga

Qualification: MEd Education Management

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2020/05/13 to 2023/05/13.

*The **low risk** application was reviewed by the Ethics Review Committee on 2020/05/13 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.
2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX B: PROVINCIAL APPLICATION TO CONDUCT RESEARCH

education
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

Ikhamanga Building, Government Boulevard, Riverside Park, Mpumalanga Province
Private Bag X11341, Mbombela, 1200.
Tel: 013 766 5552/5115, Toll Free Line: 0800 203 116

Litiko le Temfundvo. Umnyango we Fundo | Departement van Onderwys | Ndzawulo ya Dyondzo

Mrs. C.R Osman
PO BOX 2046
KINROSS
2270

RE: APPLICATION TO CONDUCT RESEARCH: MS. CR OSMAN (31122817@mylife.unisa.ac.za) 076 841 6773/017 687 0517

Your application to conduct research study was received and is therefore acknowledged. The title of your study reads thus: **"Educational inequality on access to physical resources at Highveld Ridge East Circuit of Mpumalanga."** Your request is approved subject to you observing the provisions of the departmental research policy which is available in the departmental website and available on request. You are also requested to adhere to your University's research ethics as spelt out in your research ethics document. We trust that the aims and the objectives of the study will benefit the department, especially the learners and the teaching staff and all officials in the department of education.

In terms of the research policy, data or any research activity can only be conducted after school hours as per appointment with affected participants. You are also requested to share your findings with the relevant sections of the department so that we may consider implementing your findings if that will be in the best interest of the department. To this effect, your final approved research report (both soft and hard copy) should be submitted to the department as soon as you complete your research project. You may be required to prepare a presentation and present at the department's annual research dialogue. For more information kindly liaise with the department's research unit @ 013 766 5476 or a.baloyi@education.mpu.gov.za.
The department wishes you well in this important project and pledges to give you the necessary support you may need.

MR. J.R. NKOSI
ACTING HEAD: EDUCATION
22/07/2020
DATE

MPUMALANGA
THE PLACE OF THE RISING SUN

APPENDIX C: PERMISSION LETTER FROM CIRCUIT OFFICE

Request to conduct research at identified schools (research sites) in a sub-section of the Highveld Ridge East Circuit in the Mpumalanga Province.

Title of Research: EDUCATIONAL INEQUALITY ON ACCESS TO PHYSICAL RESOURCES AT HIGHVELD RIDGE EAST CIRCUIT: MPUMALANGA

The Circuit Manager

Govan Mbeki Sub District Office

Secunda

2302

24 July 2020

Dear Sir/Madam,

I, Cookie Regina Osman, am doing research under the supervision of Dr R.I. Lumadi, a senior lecturer in the College of Education, Department of Educational Leadership and Management towards a master's degree at the University of South Africa. I intend to conduct research at six identified schools in the Highveld Ridge East Circuit.

The aim of the study is to ascertain the factors contributing towards educational inequality in terms of access to physical resources in our schools and gauge the impact of the scarcity of resources on teaching and learning. Based on the findings, recommendations will be made on how the problems can be minimised or overcome.

This area has been selected because of the ease of accessibility and convenience, as well as the fact that the researcher believes these sites will yield information rich data. It would be interesting to go out into the field and explore what changes have been affected since the advent of democracy in 1994.

The study will entail going out to the schools to conduct observations, individual and focus group interviews, and subject relevant documents to scrutiny. The benefit of the study is to highlight the plight of schools regarding the dearth of physical resources and how this can possibly be overcome. There are no potential risks involved as the key focus is on the access to physical resources. The researcher intends to compensate the schools involved by pledging her time to worthy causes and initiatives at the school. Depending on the severity of inequities and the needs of individual schools, the researcher intends to assist in co-ordinating fundraising drives or procuring sponsorships for the affected school/s.

Feedback will entail a formal scheduled meeting with all participants concerned.

Yours sincerely,

_____ _____

CIRCUIT MANAGER

APPENDIX D: PARTICIPANT INFORMATION SHEET (Principals)

11 August 2020

Educational inequality on access to physical resources at Highveld Ridge East Circuit: Mpumalanga

Dear Prospective Participant,

My name is Cookie Regina Osman. I am doing research under the supervision of Dr R.I. Lumadi, a senior lecturer in the College of Education, Department of Educational Leadership and Management towards a master's degree at the University of South Africa. I intend to conduct research to ascertain access to physical resources.

I would like to conduct an interview with you, where you will be invited to share information on access to physical resources at your school. The primary focus will be on what resources you have on hand, what you would like more of, what shortfalls exist and what impact the scarcity of resources has on the teaching and learning processes at your school. My first meeting with you will be to brief you on what I intend to do and why. This will not take more than 15 minutes. In my following meeting I humbly request at least an hour of your time, as I know you are an extremely busy individual. I would also humbly request access to certain documents which would help to shed light on the school's financial situation, qualifications of staff members, etc. I will basically just use the data and information from these documents. They will remain at the school. The information is purely for statistical purposes.

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

The potential benefit of taking part in this study is to shed light on the situation on the ground 26 years after democracy, so that important stakeholders in education can be made aware how the lack of certain resources impact on the teaching and learning process. The aim is for the situation to be improved.

You can be assured of your anonymity as your school will not be identifiable in print. I will ensure the strict confidentiality of your responses so that you need not fear reprisals in any form. The focus is on access to physical resources which is objective data, however, I would also welcome your feedback on how teaching and learning are affected. You have the right to insist that your name will not be recorded anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research. Your answers will be given a code number and you will be referred to in this way in the data, any publications, or other research reporting methods.

Your answers may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Please be assured that the security of the data will be protected. Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard at the UNISA main campus in Pretoria for future research or academic purposes. Electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. If necessary hard copies will be shredded and electronic copies will be permanently deleted from the hard drive of the computer using a relevant software programme.

In return for your invaluable input towards my study, I pledge to assist you in whatever way that I can. I would also like to volunteer my services to assist in helping with activities at your school. I come with 30 years of experience in education, two of which have been abroad.

This study has received written approval from the Research Ethics Review Committee of UNISA. A copy of the approval letter can be obtained from the researcher if you so wish.

If you would like to be informed of the final research findings, please contact Cookie Regina Osman via email: raeesah.osman@gmail.com. The findings will be accessible for a period of one calendar month. Please feel free to contact me should you require further information about any aspect of this study. Should you have any concerns about the way in which the research has been conducted, you may contact my supervisor: Dr R.I. Lumadi, the Senior Lecturer in the College of Education, Department of Educational Leadership and Management at the University of South Africa. He can be reached via telephone on 012-429 2123 / 071 532 2761 or via email at lumadri@unisa.ac.za.

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

_____

Cookie Regina Osman

APPENDIX E: LETTER TO SCHOOL PRINCIPAL

Request to conduct research at identified schools (research sites) in a sub-section of the Highveld Ridge East Circuit in the Mpumalanga Province.

Title of Research: Educational inequality on access to physical resources at Highveld Ridge East Circuit: Mpumalanga

11 August 2020

The principal:

School A/B/C/D

Kinross

2270

Mpumalanga Province

Dear Sir/Madam.

I, Cookie Regina Osman, am doing research under the supervision of Dr R.I. Lumadi, a senior lecturer in the College of Education, Department of Educational Leadership and Management towards a master's degree at the University of South Africa. I intend to conduct research at 4 identified schools in the Highveld Ridge East Circuit.

The aim of the study is to ascertain the factors contributing towards educational inequality in terms of access to physical resources in our schools and gauge the impact of the scarcity of aforementioned resources on teaching and learning. Based on the findings, recommendations will be made on how the problems can be minimised or overcome.

Please bear with me as I come to your school to conduct observations, individual and focus group interviews, and subject relevant documents to scrutiny. I have purposively selected your school because I know it will yield information rich data as well as the fact that it is easily accessible to me.

The benefit of the study will be to highlight shortfalls in essential resources and document recommendations to minimise these challenges. In return for your school's participation, I would like to pledge my support and assistance in any area where an extra pair of hands may be needed. There are no foreseeable potential risks in this study as the main area of focus is on the access to physical resources. Feedback will entail a formal scheduled follow up meeting with all participants.

Yours sincerely,

_____

_____

C R OSMAN

APPENDIX F: CONSENT TO PARTICIPATE IN THIS STUDY (Principals)

I, _____, confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet. I have had enough opportunity to ask questions and am prepared to participate in the study. I understand that my participation is voluntary and that I am free to withdraw at any time.

I am aware that the findings of this study will be processed into a research report, journal publications and or conference proceedings, but my participation will be kept confidential unless otherwise specified.

I agree to the audio recording of the individual interview. I have received a signed copy of the informed consent agreement.

Participant's Name & Surname (please print) _____

_____ _____

Participant's signature Date

Researcher's Name & Surname (please print)

_____

_____ _____

Researcher's signature Date

APPENDIX G: PARTICIPANT INFORMATION SHEET (Teachers)

11 August 2020

Educational inequality on access to physical resources at Highveld Ridge East Circuit: Mpumalanga

Dear Prospective Participant,

My name is Cookie Regina Osman. I am doing research under the supervision of Dr R.I. Lumadi, a senior lecturer in the College of Education, Department of Educational Leadership and Management towards a master's degree at the University of South Africa. I intend to conduct research at four identified schools in the Highveld Ridge East Circuit in a sub section of the Mpumalanga Province which is near my place of abode. I have been in this area for 30 years and am familiar with the territory.

This study is expected to collect important information that could help to ascertain the factors contributing towards educational inequality in terms of access to physical resources in our schools and gauge the impact of the scarcity of resources on teaching and learning. Based on the findings, recommendations will be made on how the problems can be minimised or overcome.

You are invited because I am interested in learning what physical resources are available to the Grade 7 teachers, what shortfalls exist, what you could use more of, and how all these factors impact the teaching and learning process in your classroom. I have obtained your contact details from your principal. My intention is to narrow the focus of my study because of the current novel coronavirus pandemic and the erratic closure and re-opening of the schools. Based on each school, the number of participants depends on the number of Grade 7 classes at that school. If I surmise that each school has at least three Grade 7 classes, there will be a minimum of 12 teachers in the study.

You will be part of a focus group interview, where you will be invited to share information on access to physical resources in your grade. The primary focus will be on what resources you have on hand, what you would like more of, what shortfalls exist and what impact the scarcity of resources has on the teaching and learning process in your classroom. My first meeting with you will be to brief you on why I am at your school. This will not take more than 15 minutes. In my follow up visit, I humbly request at least 30 minutes of your time, during which I will also share my best practices with you as I am currently teaching Grade 3 at an international school in the Middle East. My interview questions revolve around access to resources. I also pledge to help you by volunteering to assist with activities for the school at large.

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

The potential benefit of taking part in this study is to shed light on the situation on the ground 26 years after democracy, so that important stakeholders in education can be made aware of the lack of certain resources impact on the teaching and learning process. The aim is for the situation to be improved.

You can be assured of your anonymity, as your school will not be identifiable in print. I will ensure the strict confidentiality of your responses so that no one need fear reprisals in any form. The focus is on access to physical resources which is objective data, however, I would also welcome your feedback on how your teaching and the learner's learning are affected. You have the right to insist that your name is not recorded anywhere and that no-one, apart from the researcher and identified members of the research team, will know about your involvement in this research. Your answers will be given a code number and you will be referred to in this way in the data, any publications, or other research reporting methods.

Your answers may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

A focus group is a group of individuals who have been purposively selected to answer questions on the issue on hand, which is access to physical resources. The discussion will revolve around the lack of resources and how this affects the teaching and learning process. While every effort will be made by the researcher to ensure that you will not be connected to the information that you share during the focus group, I cannot guarantee that other participants in the focus group will treat information confidentially. I shall, however, encourage all participants in the focus group to do so. For this reason, I advise you not to disclose personally sensitive information in the focus group.

Please be assured that the security of the data will be protected. Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard at the UNISA main campus in Pretoria for future research or academic purposes. Electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. If necessary hard copies will be shredded and electronic copies will be permanently deleted from the hard drive of the computer using a relevant software programme.

In return for your invaluable input towards my study, I pledge to assist you in whatever way I can to make your teaching experience better, if I can. I would also like to volunteer my services to assist in helping with activities at your school. I come with 30 years of experience in education, two of which have been abroad.

This study has received written approval from the Research Ethics Review Committee of UNISA. A copy of the approval letter can be obtained from the researcher if you so wish.

If you would like to be informed of the final research findings, please contact Cookie Regina Osman via email: raeesah.osman@gmail.com. The findings will be accessible for a period of one calendar month. Please feel free to contact me should you require further information about any aspect of this study. Should you have any concerns about the way in which the research has been conducted, you may contact my supervisor: Dr R.I. Lumadi, the Senior Lecturer in the College of Education, Department of Educational Leadership and Management at the University of South Africa. He can be reached via telephone on 012-429 2123 / 071 532 2761 or via email at lumadri@unisa.ac.za.

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

_____

Cookie Regina Osman

APPENDIX H: CONSENT TO PARTICIPATE IN THIS STUDY (Teachers)

I, _____, confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet. I have had sufficient opportunity to ask questions and am prepared to participate in the study. I understand that my participation is voluntary and that I am free to withdraw at any time.

I am aware that the findings of this study will be processed into a research report, journal publications and or conference proceedings, but my participation will be kept confidential unless otherwise specified.

I agree to the audio recording of the focus group interview. I have received a signed copy of the informed consent agreement.

Participant's Name & Surname (please print) _____

Participant's signature Date

Researcher's Name & Surname (please print)

_____

_____ _____

Researcher's signature Date